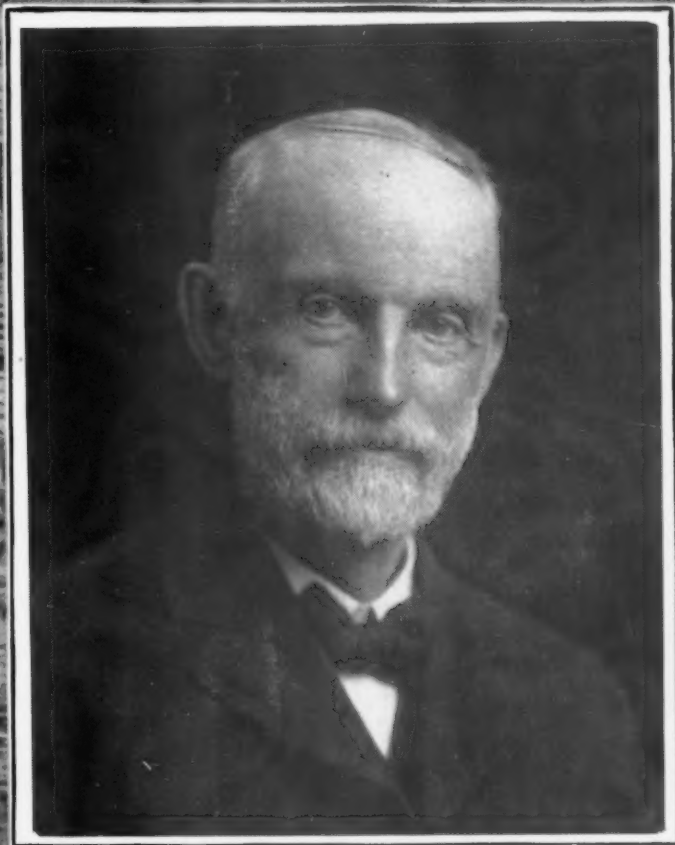


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August

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American Bee Journal

HAMILTON, ILLINOIS

August, 1946

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Lumber has not only been scarce but it has increased in price to us way beyond the basis used to figure Bee-ware prices since our last price change. Not only lumber but many other factors entering our costs have increased beyond our control.

An appeal to O. P. A. for price relief had been made but final action had not occurred before this agency passed out of the picture June 30th last. Some price increases on goods we sell had already been made by the manufacturers, such as bee comb foundation, smokers, etc., which we necessarily passed on.

Effective July 15th we made an increase in price of bee supplies of 10% applying on items not previously increased during 1946. This increase should have been made sooner and the present increase will have little effect upon 1946 honey producing costs, since the season is nearly over.

This has been a trying season as we never had nearly enough lumber at any time to supply our old customers and were forced to cut down many orders to spread what little we had. Some lumber is almost impossible to buy which accounts for our having been out of sections at times. No one can tell what 1947 will be like but it appears that lumber will remain tight for many months. We will do the best we can to make the best supplies we know how with materials available and sell them at the lowest prices consistent with good business practice.

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Fig. 1. Sprinkling the acid board.



Fig. 2. Acid board on supers.

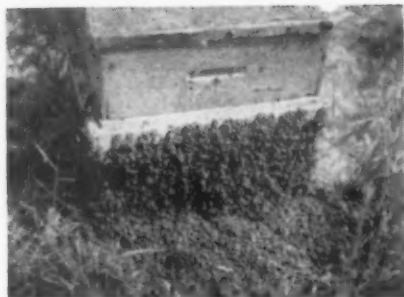


Fig. 3. Bees away from acid at entrance.



Fig. 4. Removing supers freed of bees.



Fig. 5. Carrying super to the truck.

How To Remove Supers of Honey With Acid

BEEKEEPERS today freely use chemically pure carbolic acid to remove extracted honey from their bees. In the early period of its use many were afraid that the acid would taint the honey. Some reports were that it did. However, it seems certain that the acid used in such cases was not chemically pure but crude commercial acid. The chemically pure acid, obtainable from wholesale drug or chemical houses or from retail stores, is a white crystalline substance which easily dissolves when hot water is added to the container and allowed to stand.

Then you have a water white liquid which may be diluted still further with water, as desired, up to as much as fifty per cent; or used without further dilution. The acid burns the skin quickly but may be neutralized by

pouring on alcohol of any sort. The greatest precaution is not to get any in the eyes.

If you follow the pictures as numbered, the way to use the acid is quickly understood. Figure 1 shows how the acid, contained in a bottle with a sprinkler top, is scattered on the acid board until the board is covered with the liquid but not sufficiently to run or drip. The board is a wood frame covered with cloth and the cloth in turn covered with tin, painted black. It is the size of the top of the hive or super. Usually ten boards are enough for any removal.

Figure 2 shows the board placed on top of the supers. If the day is warm and sunny, five boards will chase out the bees, which try quickly to get away from the irritating acid fumes. They will keep one man busy taking

off the supers, as they are freed of bees, and lowering the boards to the supers next below. If the day is cool, or cloudy, or windy more boards may have to be used. Sometimes in cold fall weather they do not work well at all.

Figure 3 shows how, as the acid board is dropped nearer and nearer the brood nest, the bees will cluster outside. They must not be forced out into the air to fly however, as often the queen goes out too and the bees drift badly. Often the colonies are weakened or turn up queenless when this occurs. Get the bees out of the supers but not into the air.

Figure 4 depicts a handy way for two men to lift off the supers. Each operator has a triangular block tied to his belt and this block is inserted between supers as the two men to-



Fig. 6. Loading the truck.

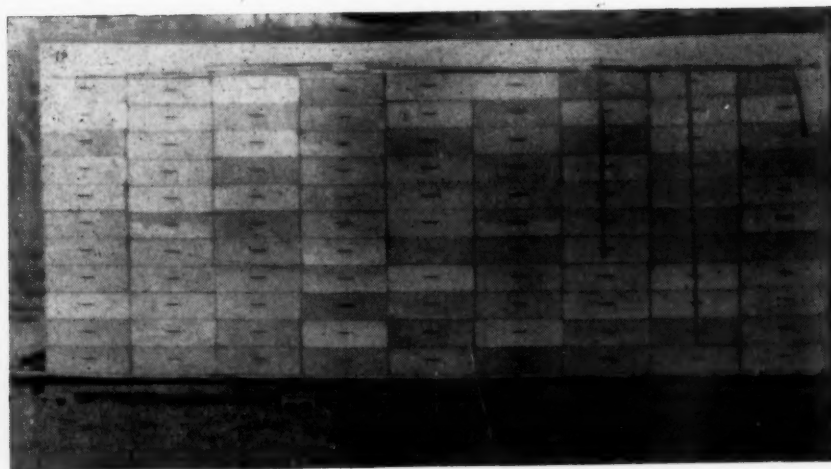


Fig. 7. Supers on outdoor platforms.



Fig. 8. Gassing the supers.

gether get their fingers under to lift the heavy supers. Empty supers may be put back on the colony, or partly filled ones left with the colony, as desired.

Figure 5 illustrates the handiest and perhaps the easiest way to carry a full, heavy super of honey. Rest it on the belt with the hands grasping opposite or diagonal corners. To prevent the combs from rubbing or swinging together, pick up the super with the top bars of the frames running out away from you.

Figure 6 shows a setup for loading a truck quickly. A walking plank (or a set of adjustable steps) is held in place at the back of the truck bed, and the loaders may then walk up into the truck to place the supers as desired. A heavy cover cloth draped over the cab is pulled back over the supers as the load allows to keep out any bees that may be inclined to rob. Use fly spray plentifully on the cloth and few robbers will bother. Be sure the cloth covers the loaded supers well so there are no open places for the bees to get in.

Figure 7 was taken of a pile of supers on a heavy wooden platform after they have been extracted and not needed until another flow. Supers from colonies that may be found with disease must never be piled out this way but should be kept inside for rendering. Colonies may easily be examined for disease before putting on the first supers and all disease removed by killing the bees, rendering the wax and cleaning the equipment. When taking off the honey, the brood may be again examined for disease when the brood nest is reached. The clean supers are placed on the outdoor platform or on a similar platform in a covered shed. The supers are on two-by-four runners so the bees may clean out all remaining honey, getting into the supers underneath.

Figure 8 shows how fumigating boards are used to keep moths out of the supers. Piles of cyanide are placed at intervals on these boards and between them small boxes of poisoned wheat for mice and rats. Run the boards under the supers. Close the lower openings. Then cover the tops of the piles with cover boards, with heavy tar paper on their bottoms. If the platforms are outside, put lengths of tar paper over the entire top of the supers and nail narrow strips of wood along the overlaps and at the sides. Wind or storm, or snow or rain, will then have little effect on the equipment.

Sulfathiazole and American Foulbrood

By J. E. Eckert



J. E. Eckert

THE use of sulphathiazole in the treatment of American foulbrood of bees is the most discussed issue among beekeepers wherever they gather for a discussion of their many problems. The desire for specific information on the effectiveness of this drug in controlling one of the major sources of loss in the beekeeping industry has caused many county, state and university officials, as well as hundreds of individual beekeepers to "experiment" with the feeding of this chemical to diseased colonies. Some are enthusiastic about the results secured while others are keeping their fingers crossed, hoping for the best but entirely willing to let others do the experimenting.

The reports of Dr. Haseman and of Mr. Childers, of Missouri, on the results of their initial studies of the effect of this drug on diseased colonies should be taken at their face value and with the realization that there are many factors we do not know about the use of sulfathiazole in the treatment of AFB. Their work has opened up a field of research that should be thoroughly explored under all environmental conditions before any general recommendations are made that would tend to reduce the present vigilance needed to control this disease.

How does sulfathiazole affect American foulbrood? Frankly, we do not know at this time whether sulfathiazole acts as an inhibitor to the development of the bacillus causing the disease, or whether it actually kills certain stages of the bacterial growth, or whether it stimulates the bees to a point where they are more efficient in cleaning out the diseased material from the cells.

So far we have treated 50 colonies with varying amounts of sulfathiazole in sugar syrup during the past year. Some of the colonies have gone through two seasons in which little or no nectar was available. Others were fed in the fall when they had

an abundance of winter stores. Some colonies have used up as much as 5 gallons of syrup and 8½ grams of sulfathiazole—all of which may not have been necessary. Some of the "cured" colonies have been divided to make brood chambers out of their supers. Of this total number 10 colonies have shown a recurrence of the disease in a few cells and are being treated again.

Had the combs of the apparently "cured" colonies been given to disease-free colonies, it is entirely probable that AFB would have been spread to other colonies.

The per cent of infection in the treated colonies varied from a few cells to where 6 or more combs contained 40 to 50 per cent of infected cells in the brood area alone.

Present observations then would indicate that, under certain conditions, the feeding of sulfathiazole in sugar syrup to infected colonies stops the infection from spreading, enables the bees to rear healthy brood in cells that formerly contained diseased larvae, and stimulates the bees in some manner that causes them to remove dead larvae and scales from the cells in the area in which they rear brood. However, in some instances where the colonies have been apparently freed from any evidence of the disease, reinfection of the brood has occurred in a manner that would indicate the new infection did not come from an outside source. Consequently, it seems evident that sulfathiazole does inhibit the development of the disease, that it does permit the bees to clean out diseased material from the cells, and that it may be the means of eradicating the disease from an infected colony if these two factors operate under favorable environmental conditions. It is not at all clear whether the sulfathiazole can destroy the bacteria in cells outside of the brood area and herein lies the chief danger of this treatment.

Since the bacteria in an infected

colony are not confined solely to the brood area, but may occur in some other portion of the hive, it would seem necessary that the infected colony use up all of its natural stores and rear healthy brood in every cell of every comb before one could be fairly certain that the disease no longer exists in the hive. However, since it can be demonstrated that some diseased colonies can eliminate all evidences of the disease and remain free from infection for months after the last of the sulfathiazole has been used, it would seem plausible that the method might be made 100 per cent effective when we learn the exact manner in which the sulfathiazole works and the limits of its use.

Some facts we need to know about the sulfathiazole treatment. For the sake of brevity, some of the facts we need to know about the sulphathiazole treatment can be listed as follows:

1. Just how sulfathiazole affects the bacteria causing American foulbrood.
2. Can combs that contain diseased larvae be freed of all stages of *Bacillus* larvae?
3. Under what conditions will super combs from an infected colony be a source of infection if given to other colonies?
4. Will the removal of the diseased material by the bees constitute a source of infection to other colonies in the vicinity?
5. What is the most efficient method of feeding a colony sulfathiazole syrup and how much needs to be fed to eradicate the disease?
6. What disposition is made of the

syrup by the bees if it is fed by entrance feeders or above the super combs under varying seasonal conditions?

7. Can a diseased colony be treated successfully during a nectar flow?

8. What is the danger of contaminating honey with sulfathiazole?

9. What is the effect of sulfathiazole on the bees under varying conditions?

10. Will a strain of *Bacillus* larvae be developed that is resistant to the effects of sulfathiazole?

11. Will the feeding of sulfathiazole as a "preventive" to AFB, cover up some of the disease and thus cause its spread if combs are distributed to other colonies?

12. Should colonies be cut down to one story for treatment and then be permitted to use up all of the sulfathiazole syrup before they are used in honey production?

The cost of treating colonies with Sulfa-Syrup. So far, about the only directions that can be given concerning the feeding of sulfathiazole to colonies infected with AFB is to dissolve one-half gram of sulfathiazole in each gallon of sugar syrup and continue feeding until all evidence of the disease has disappeared from the combs. The amount of syrup that needs to be fed is apparently governed by (1) the amount of the disease present, (2) the strength of the colony, (3) the distribution of the cells containing the disease, whether they are confined to brood chamber or also occur in the supers, (4) and the outside environmental conditions, such as the amount of incoming nectar. Whether the syrup is fed by an entrance feeder, or above a super or placed directly in the brood combs may also have a direct bearing on the length of time and amount of syrup and sulfathiazole that needs to be fed. The initial cost of the sulfathiazole and sugar is small, the total cost of the treatment may amount to considerable when the cost of labor and travel is added.

Outside feeding during the spring and fall will cut down the costs but it is very doubtful if this method should be resorted to unless there is every possibility that the colonies will use all of the syrup in brood rearing. Usually, the weakest colonies that may need the syrup most will get the least under open feeding methods.

The general consensus of opinion of the commercial beekeepers in California is that they will continue to

destroy their diseased colonies as soon as they are found and will continue to do so until a better method has been perfected. The cost of operating diseased colonies or colonies that are suspected of being diseased will add materially to their general expenses under migratory beekeeping conditions.

The treatment is not as simple as the mere feeding of four to eight quarts of sugar syrup in which one-half gram of sulfathiazole has been dissolved in each gallon. Continual feeding over several weeks is necessary in some instances, and the added manipulation of the frames and supers to insure a "cure" and the isolation of all such equipment from non-infected colonies are precautionary procedures that beekeepers should follow. It would seem desirable to use as dilute a sugar syrup as the bees will take, especially during the spring brood-rearing period, in order to insure that more of the syrup will be used in rearing brood.

Sulfathiazole and other bee diseases. In two cases, European foulbrood appeared in colonies under our observations after they had been fed sulfathiazole syrup. Reports from co-operating beekeepers also indicate that sulfathiazole has no curative value as far as European foulbrood is concerned. In fact, in two instances it appeared that EFB became worse after sulfathiazole syrup had been fed.

Sacbrood continued in colonies that were being fed sulfathiazole syrup for the treatment of AFB, and a colony affected with "paralysis" showed no improvement after it had received one gallon of sugar syrup containing 0.5 grams of sodium sulfathiazole. Another colony lost a third of its adult population in early spring after being wintered on stores containing sulfathiazole. Other colonies did not show any such reduction in their adult populations.

Our preliminary observations would indicate that sulfathiazole syrup has little or no curative value on European foulbrood, sacbrood or "paralysis".

Precautionary Methods. It will take several years of careful observations to secure the answers to the many questions concerning the use of sulfathiazole. In the meantime, it seems obvious that the following precautions should be taken in the feeding of sulfathiazole to colonies of bees to safeguard the general welfare of the beekeeping industry.

1. Every frame should be permanently marked to indicate that it

came from a diseased hive. Bright paint on the top bars would aid in recognizing these combs and in preventing their distribution to other colonies.

2. The equipment should be kept together for use only on the experimental colonies for a period of several years after all evidence of the disease has disappeared (if it does).

3. Sulfathiazole syrup fed to colonies should be used in brood rearing before the colony is used in honey production.

4. Supers and brood chambers should be reversed until brood has been reared in all of the combs.

5. Quarantine yards should be established with the consent and co-operation of the inspection service and research officials and experimental feeding of diseased colonies should be confined to such yards.

6. Fall and spring feeding of sulfathiazole syrup should be carefully checked for during these times the syrup will be used in brood rearing and the danger of contaminating honey with the drug will be reduced to a minimum.

7. The dangers of AFB must not be minimized and the purity of honey must be safeguarded at all times.

8. The burning treatment is undoubtedly the most thorough treatment of eradicating the disease when properly done and should be continued until a more effective method has been perfected.

The Morality of American Beekeepers

If American beekeepers were not among the most moral of men, it might be inadvisable even to mention a recent Swiss incident. Last year the export of Italian honey across the Swiss border was prohibited, much to the pain of a Swiss trader. This trader managed to get a message to his Italian supplier and in response, according to the Geneva correspondent of the London Times, the Italian pots of honey were brought close to the frontier and left open. Thereupon, the Swiss trader moved his beehives to a point across the frontier from the honey pots and let his bees do the rest. The busy little Swiss bees are credited with bringing two hundred pounds of Italian honey across the border duty-free in three days. Sweet are the uses of ingenuity, too.

(From a clipping sent by Rev. Wm. H. Elges, Iowa.)

A. I. Root

1830-1924

By Kent Pellett

THE founder of the A. I. Root Co., had a hand in most beekeeping improvements in his day.

Early bee supply houses were founded by practical beekeepers who made implements to lessen the work and increase the output of their own apiaries before putting these gadgets on the market.

The Root firm was no exception. A. I. Root was a man of almost volcanic energy and one of the most enthusiastic beekeepers of his time. An amazing number of ideas and improvements were tried out in his apiary then introduced to the public through his magazine, *Gleanings in Bee Culture*.

He improved the early honey extractor and bee smoker and offered them for sale.

He helped perfect the early manufacture of comb foundation with roller mills by encouraging and helping finance the inventors.

As early as 1875 Root successfully reared queens by grafting queen cells. He also publicized other men's efforts at queen rearing and so aided in the development of a successful system of queen rearing.

He first suggested the idea of trading in package bees when he sought to replenish his own apiary after loss of a large part of his bees. Devising a cage in which live bees might be shipped, he offered to pay a dollar a pound to beekeepers who would ship them to him. A year later he was listing a dozen beekeepers who had live bees for sale, in *Gleanings*.

Root was the first to sell dollar hives, and he encouraged other manufacturers to follow suit. Cheap hives led many people to take up beekeeping. Some observers doubt that they were a boon in the long run as they blame the small hives for the trouble beekeepers had with short honey crops for many years. But R. B. Willson has pointed out that Root's hives contributed to hive standardization and so avoided the dozens

of patterns to be found in some other countries.

Even his magazine, *Gleanings in Bee Culture*, and his book, *ABC & XYZ in Bee Culture*, were in a sense outgrowths of his apiary, as he first published them in an attempt to cut down on his large correspondence in answer to the questions of other beekeepers.

Gleanings started as a quarterly to sell for twenty-five cents per year, but he received so much encouragement with the first issue that it was immediately changed to a monthly magazine.

ABC & XYZ was first sent out in eight-page sections arranged alphabetically by topic, each section to sell for a nickel. All sections combined were to cover the whole range of beekeeping. It grew into a complete encyclopedia of beekeeping and by the 1930's had sold over 200,000 copies.

* * * *

Root was born in 1839 on a farm near Medina, Ohio, where he was to establish his bee supply business.

He was undersized physically and he early began using his head to escape physical work. One of his first attempts was in rigging up the windmill on the family farm to churn butter for him.

As a boy he was intensely interested in science. He created an uproar in his family by insisting on going to an electricity show rather than to his sister's wedding. At seventeen he had grown a full beard and as Professor A. I. Root was traveling and giving his own lectures on electricity and chemistry.

A year later he opened a jewelry repair shop after his prospective father-in-law expressed skepticism that he would ever be able to make a living. This developed into a jewelry business where he eventually employed fifteen to twenty people.

He was a jeweler for eighteen



years. But he only found himself completely after entering the bee business. He said, "Whenever I received money for a piece of jewelry it gave me no such satisfaction as it did when I received it for a beehive."

* * * *

All his life he was following one hobby or another, or perhaps several of them at once. He gardened and raised carp and wrote books on tomato and potato culture.

The story of his being led into beekeeping by offering an employee a dollar if he would catch a passing swarm has been told many times. The swarm was caught and Root found himself absorbed in a new hobby. The steps from the apiary to the bee supply business to his own magazine were taken in due course.

During his active years with *Gleanings*, the publication was a reflection of his personality. He gave free accounts of his experiences, both his successes and failures. He fought crooks, of which there were many then in the bee business, giving them free publicity. He angered other bee supply men by discouraging patents in bee supplies, since he contended that all information and inventions should be for the free use of everybody. He led a crusade against smoking, giving a thousand bee smokers to beekeepers who signed the non-smoking pledge.

And since he was a religious man, the religious influence pervaded the magazine's pages.

New French Book

A 190 page cloth bound book, 6 mo size, containing 221 half tone sepia illustrations, just come from the press of Montfavet in France, and is edited by Raoul Alphandery.

The name of the book which, of course, is written in French is "Un Rucher Nait" (An Apiary Is Born).

As the title indicates the book's object is teaching how to plan on becoming a beekeeper and establishing bees and finally an apiary.

Some subjects treated are, Who Should Take Up Beekeeping, Honey Plants, Nitrogen and Phosphorus as Elements in Nectar Secretion, Chemistry in Beekeeping and Selection of Locations, Pollination, Pollen, Propolis, Comb and Wax, Brood Production, Races of Bees, the Bee Colony, Bee Hives and Tools, Queen Rearing, Wintering, Diseases of Bees.

In fact every detail of complete management of bees is included.

For the beekeeper who can read the French language, it is highly desirable and a very finely illustrated work. The price is not mentioned. We have asked the publishers to send us two or three copies. Those interested can write to the Publishers, Librairie De Vulgarisation Apicole, Montfavet (Vaucluse) France.

Bees On Alfalfa

For the most part alfalfa is not considered a self-pollinating plant. The pollen is distributed by insects that can trip the bloom. Only four insects, all bees, are found doing a satisfactory job in Utah. The leaf cutter bee (*Megachile*), Alkali bees (*Nomia*), honeybees (*Apis*), and bumblebees (*Bombus*).

The respective maximum number of the first three found in alfalfa during two years were 160, 14,500 and 29,000 per acre. The maximum number of tripped blooms by a single bee were *Megachile* 148, honeybees 129, Alkali bees 78. The number of blooms tripped per minute by individuals of these three were 15, 7, and 10 respectively.

The tripping of the florets is high at times, but in fields with low insect population scarcely any tripped blooms are seen.

Some indication that quantities of honeybees may influence alfalfa seed crops are shown. When movements of colonies of bees to summer ranges in Utah dropped below 10,000 colo-

nies, seed production also dropped but it increased again when migratory beekeeping increased to about 10,000 colonies.

Glenn Perrins, Utah.

Another French Book

La Cite des Abeilles is the title of another French book just received at our office. A paper bound book of 238 pages, it is written by Marcelin Lassalle, Director of the school of Apiculture at Paris.

The usual treatment of bees is included from anatomy to diseases. One is struck by two features; the explanation of how to make hives 'fixes' (box hives and skeps) with the explanation that such are about all that the countryman can get or make under present conditions. The other is the stressing of the uses of honey. Much more space is devoted to recipes, as in cooking, and particularly the health value.

The book is published by Bloud & Gay in Paris and sells at about \$1.00.

Two-Queen Colony Management

This is the title of circular E-693 issued by Dr. Farrar of the Division of Bee Culture, Madison, in co-operation with the University of Wisconsin. It gives comparative yields of surplus honey, equipment used, organization and management of two-queen colonies, manipulation, supercedure replacement, swarming and increase, tabulation of results and diagram of procedure. Copies of this may be obtained by those interested from the United States Department of Agriculture, Bureau of Entomology and Plant Quarantine.

The Honeybee and Radish Seed Yield

Reprinted from the Michigan Agricultural Experiment Station quarterly bulletin, comes an article by J. C. Kremer, of the Section of Horticulture, on "The Influence of Honeybee Habits on Radish Seed Yield." Mr. Kremer points out that the radishes are a minor honey plant and bees often succumb to the attractiveness of sweet clover and other major plants blooming at about the same time.

While weather conditions largely control the nectar secretion and pollen supply, a number of methods are

recommended to radish seed growers for increasing the yield of seed.

It may be necessary to change the location of the radish plantings where there is less competition from major honey plants or to even reduce the amount of major honey plants in the area.

Surrounding the area with permanent yards of bees or maintaining colonies or renting colonies to accomplish the same purpose are advised where there are many difficulties in getting proper seeding.

Honey Plants for Waste Land

A reader from Detroit, Michigan, writes to inquire where seed of marjoram, horehound, catnip and motherwort can be bought at a price which will permit him to plant on waste land and whether these plants will grow without cultivation.

These are easily naturalized where the ground is not already so fully occupied with weeds as to prevent the young seedlings from getting a start. We would suggest that *salvia superba* be added to this list. Bee sage seems like a good name for this plant if it were not for the fact that already there is a wild plant in the Southwest which is called bee sage.

Seed of all these plants is advertised from time to time in our classified columns by Melvin Pellett, Atlantic, Iowa.

Induce Resistance

It is reasonable to believe that if AFB colonies in a yard are promptly destroyed each year as the disease appears, the bees of colonies not infected will, in time, develop a considerable resistance and may become immune or, at least, become much less susceptible to the disease. It is well known that tuberculosis among humans is less prevalent than formerly, due largely, no doubt, to a degree of immunity acquired through the elimination of those unable to resist infection.

E. S. Miller, Indiana.

Alcohol for Bee Stings

Use rubbing alcohol for bee stings. After removing the sting with knife or finger nail, apply alcohol liberally at once.

W. C. Vandenberg,
Arkansas.

How to Find the Queen Bee

MANY beekeepers who have had bees for years do not know how to find the queen bee. Many for some reason think it necessary to see the queen to know that she is present and to judge her condition. However, if the brood pattern and the amount of brood are satisfactory, and if the colony is maintained well there is seldom any reason to find the queen till by her work she is no longer judged to be satisfactory.

Queens marked with color are easily found. Queens that are not marked or are merely clipped are not so easily found, and queens of a race like the Caucasian, where the bees and the queens are of the same approximate color value, are difficult to locate without a marking.

Simple Procedure—There are times when it is easier to locate queens than others. When the colony is in the midst of the flow, and is busy in the supers, it requires considerable labor to reach the brood nest and there are so many bees present and such a great amount of activity that often it is hard to locate the queen among the teeming population. It is much easier to find queens during the early part of the season when the colony is not so large, the amount of brood is less and yet there is a sufficient nectar flow so the bees will not rob. It is also relatively easy to find queens in the latter part of a fall flow when most of the supers with the crop have been removed. The colony is then not too large, so that the work is relatively easy. As far as introduction and acceptance is concerned they are also at their best at these same times.

Little disturbance, easy motion and little smoke so that bees do not run around excitedly in keeping away to escape the efforts of the operator, make it quite easy to locate the queen, since she will usually be so occupied with her own activities that she will pay little attention even to the removal of the combs. However, the bees of some colonies tend to travel away from the operator even when the work is done quietly and the queen accompanies the bees even to the point of reaching the hive walls or the bottom board hidden under her workers.

Since the queen is seldom on the

side combs remove one or two of them to begin with then either work slowly toward the center of the brood nest or separate the combs that remain in the middle and work either way from the center. When there is little to be feared from robbing the combs may be set outside the hive in their proper order and returned the same way. Watch carefully, usually the queen will be found on the first examination.

If she is not found readily the combs may be put back in pairs the hive closed for a few moments and then reopened. Examining the pairs of combs in succession looking for the queen first in between the two combs will usually result in her being found.

Special Procedure—If queens are difficult to find because of their similarity to workers, as the Caucasian, or because the bees are cross and tend to run around the hive in confusion it is sometimes necessary to use special methods to locate the queen. Perhaps the easiest way under such circumstances is to set the colony to one side, put a hive of empty combs in its place, excluder on top, an empty hive body on top of the excluder, then the combs with bees may be shaken inside the empty hive body, returning the brood to the hive where it belongs. After removing all the bees into the empty hive body the worker bees will run through the excluder, and the queen will eventually come into view trying to get through the excluder with the workers.

It is sometimes done by putting a strip of queen excluding zinc over the entrance to the hive and shaking all the bees on a runway in front of the hive and finally picking the queen up when she tries to get in the entrance.

In working two story colonies, if an excluder is placed between the two bodies it is easier to find the queen, starting first in the upper body. She is not able to run down into the body below. It is quite likely when a colony is in two bodies during the honey-flow that the queen will be in the lower body. However, during the spring period when brood is being expanded rapidly, she is more apt to be in the top body.

The stage of the brood on the comb will often indicate where the queen is likely to be. She is usually on combs in which she is busily laying

and therefore, is less apt to be on the combs of sealed brood without many eggs or chance for laying activities.

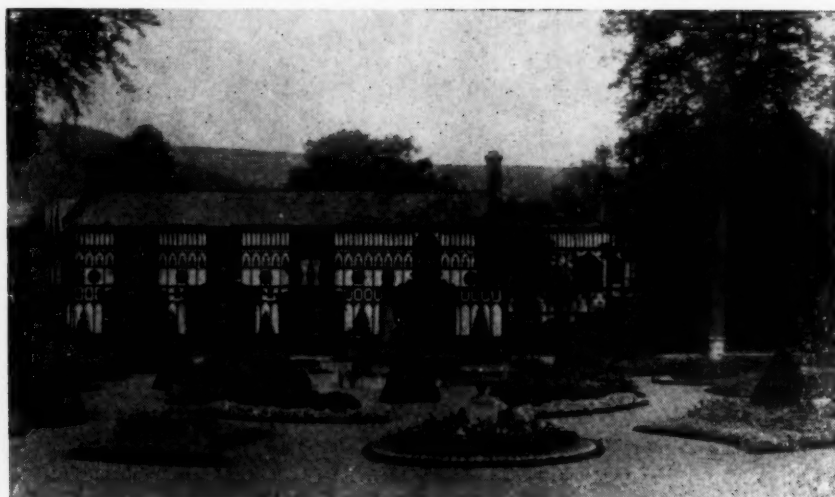
C. L. Sams of North Carolina ran the majority of bees to the top of the hive by vigorous smoking and drumming under the hive with the expectation of forcing the queen to the underside of the inner cover of the hive where she can be found, or in the case of two or more hive bodies a queen excluder may be slipped above the first one after the bees are driven up and then the bees may be smoked down again from the top. The queen will most surely be found with only a few bees trying to get through the excluder.

Plurality—Although it is generally admitted that it is not usual to find more than one queen in the hive, there are times when many colonies will have a plurality of queens. We have examined colonies with as many as four queens present at the same time and it is not infrequent to find two even on the same comb surface. Usually when two are present it is the old mother and the young daughter. Eventually the older one will disappear.

Nevertheless, it is likely that plurality is quite common and usually occurs during supersedure when the bees are replacing old queens with young ones. Plurality condition does not last indefinitely. In trying to find a queen therefore, the value of marking the queen becomes at once apparent. It is then quite certain that a marked queen is the old one and the unmarked queen which may be found is the young one. Often the younger queen, not having had time yet to establish her own activity is nevertheless a satisfactory queen and the colony may well be left alone since it has already requeened itself.

Used Bee Cages

W.E. Anderson, State Entomologist of Louisiana, writes that recently shipments of used bee cages being returned from the North to the South were intercepted in that state. It is against the Louisiana regulations for any used bee equipment to be shipped into the state without a Louisiana permit.



The residence of the famous Ladies of Llangollen on the banks of the River Dee, described by Wordsworth as "a lowly cot by Deva's banks."

Dr. John Evans, of Shrewsbury, England



The Ladies of Llangollen.

By R. W. Parker

READERS of Langstroth's ever-green classic "The Hive and the Honeybee" have doubtless often experienced more than a passing interest in the author whose delightful poetic quotations serve so admirably to illuminate the text. Apart from footnote to page 64 that "Dr. Evans, was an English Physician and author of a beautiful poem on bees" nothing more is vouchsafed of the writer or the history of his little known work.

Few copies of the book are now extant but fortunately for American beekeepers one is to be found in the Memorial Library to the beloved American beekeeper of revered and cherished memory, Dr. C. C. Miller.

In his preface to "The Bees" Dr. Evans, complains of the neglect of bees by the British muses and says, "While the bees of other nations have been able to boast their zealous and patient investigators in Maraldi, Swammerdam, Reaumur and Huber, and a poetical panegyrist in the elegant Vanier; yet in this birth-place of free enquiry, and of the immortal Bacon, scarce one scientific

work has been devoted to the service of these valuable insects. Nor, except perchance 'to point a moral or adorn a tale' hath the British muse deigned to present one garland at their shrine."

During his lifetime Dr. Evans was intimately associated with the public life of Shrewsbury, and was one of the founders of the Library, a stately building in which is to be found one of the rare copies of "The Bees" the title page of which afforded the accompanying photograph. The Library is approached by a long flight of stone steps surmounted by a life size memorial figure of another of Shropshire's famous sons, the great naturalist Darwin. It is interesting to recall that Dr. Evans' lament of the poetical medium of expression being divorced from the prose in scientific works, found an echo in the life of the world famous evolutionist who expressed regret in his later years that the long habit of analyzing and sifting of scientific data had rendered him incapable of enjoying the pleasure of poetic diction.

The unlimited possibilities of poetic

expression as the handmaid of science has been well stated in a recent editorial of an English daily.

"Ever since the men of science began to organize their contributions to human welfare they have had poetry for a partner. This may surprise those who think of poets as mere dreamers excessively emotional and imaginative—anything rather than practical. But when the poet found himself able to illumine life with a swift flash of rhyme he offered to ordinary people an understanding of what the scientist is concerned to give to his fellow-experts and students exclusively. Even if the man of science tried to expound in popular language his discoveries and assumptions he would hardly be as enlightening in a long essay as the poet may be in a single stanza. Indeed, the poets have often been in advance of the scientists in this regard; their poetry hints, beckons, and points, subtly or vaguely, until by the time the pilgrim of science reaches and passes the signpost the poet's intuitive meaning has become astonishingly clear...."

Dr. Evans not only understood the

facts of the science of apiculture; he had a feeling for its poetry as well. His great love for and interest in nature was doubtless inherited from his father "whose priceless Virtues, public Spirit, and refined Taste were well known to all who enjoyed the pleasure of his acquaintance," and the introductory verses of the poem serve as an affectionate tribute to his memory.

The following obituary notice of Dr. Evans appeared in "Eddowes' Journal" Shrewsbury of January 28th, 1846.

"The venerable gentleman the senior physician to our Country Infirmary, F. R. M. S. Ed. expired in his 92nd year at Hensham Vicarage, the residence of his son in Westmoreland, on the 18th. This gentleman resided at the Council House, and practised in this town about 40 years. In conjunction with the Rev.

E. Harris, of Cruckton & Arscott, and the present Mr. Clement, senior, Dr. Evans was the Founder of the Public Library in the town. He was the author of several papers on Medical and Botanical subjects in Reviews and Medical publications.

In the year 1804 Dr. Evans published his first canto of "The Bees" a poem in four books, with notes, moral, political and philosophical (which was printed at the office of this journal). The first canto was dedicated to Lady Williams Wynn of Wynnstay, the sister of Lord Grenville (collage of the late Earl Grey) and mother of the late baronet, and of the Rt. Hon. C. W. W. Wynn, M. P. for Montgomeryshire.

In 1808, the second canto appeared; and in a few years afterwards the third canto, dedicated to the celebrated "Right Hon. Lady Eleanor Butler and to Miss Ponsby of Llangollen,"

The promised fourth book of canto of "The Bees" never appeared.

When Dr. Evans left Shrewsbury, he resided at his estate, Llwyn-y-groes until he removed a few years ago to his son's residence in Westmoreland. The character of Dr. Evans may be given in a few words "Esteemed and beloved by all who knew him."

"The manuscript of the fourth canto was prepared for the press, but it was never published, as the sale of the former portions was not satisfactory to the author. All efforts to find the manuscript in the possession of his descendants have failed, so doubtless it has been destroyed, either wilfully or carelessly" wrote a contemporary.

Woodlands,
Ruabon, Wrexham,
N. Wales, England.

Primitive Beekeeping In Our United States

By Geo. H. Rea

"THIS county is one of the most backward in the United States," remarked the county agent, as we drove slowly along the mountain road. "If there is one modern beehive in the county I have failed to find it" he added. He might have truthfully continued that the scenery was among the best in the country but the honey sources few.

We visited several beekeepers that day. The hives were all log gums or box hives. Some log hives were three feet high and more than one foot in diameter while others were only sections of hollow limbs in which swarms had lodged. The larger gums contained enormous colonies of vicious black bees. Some colonies had died recently, while many others, still living, were found to be badly infected with European foulbrood. As is usual in isolated, primitive beekeeping, no American foulbrood was found.

Our car stopped below a home on a hillside. In characteristic language, "come on up" called the beekeeper who was reclining on his back under a sweet gum tree. Since it was an oppressively hot August afternoon we did not blame him for little more than turning his head, to look our direction, without shifting his position. We introduced ourselves and accepting his further invitation made ourselves comfortable, in the shade, near him. Then began one of the strangest and most interesting but one sided conversations in our many years of visiting beekeepers.

For a full hour he regaled us with stories and instructions about beekeeping. Why bees do better in old fashioned gums than in "newfangled hives," how to apply the juice of plants on bee stings to prevent swelling and smear the inside of the hive with these same juices to induce the new swarm to stay, etc., etc., all



George Rea.

familiar devices appearing in beekeeping literature.

His enormous conversational capacity tended to inhibit our usual desire to do all the talking even though his beekeeping knowledge and the condition of his log gum apiary, near us but hidden from view by a heavy growth of weeds and briars, were out of keeping with his lazy attitude and the condition of his colonies. Our part in the conversation was limited mostly to "yea and nay" but our unusual silence seemed to surprise and please him. Looking back to the occasion I cannot recall having left

with him one constructive suggestion about modern beekeeping.

As we were about to leave our host said "Now, stranger don't hurry off. I want to tell you all something about the honeybee." We paused to listen to his amazing story. "When the Lord God made heaven and earth He made the honeybee and it is the most faithful, obedient and industrious of all God's creatures. But God was displeased to find the honeybee working on the Sabbath Day for it was made for a day of rest. The Lord God said to the honeybee 'you must not work on the Sabbath Day' but the

honeybee was so industrious he couldn't stop. So, the Lord God said to the honeybee, 'Now honeybee I'll work on all the flowers excepting the honeysuckle, on the Sabbath Day.'" Here he paused and pointing a long bony finger at me he said "The honeybee is industrious but he is obedient to the Lord. Now, stranger you may look where you will, I've done it many the time, an' you'll never find a honeybee on a honeysuckle blossom on the Sabbath Day."

"How about that strange story" asked the county agent as we drove down the road. "Whether a figment of

the beekeeper's brain or a tradition, handed down from generation to generation of his ancestors I do not know," I replied. "If the latter it may never have been recorded in beekeeping literature."

There is basic fact underlying all traditions, as in this one. Rarely are honeybees found working on the blossoms of the common vining honeysuckle, on the Sabbath or at any other time.

Pennsylvania.

Package Bee Shipments In 1945

The complete report for 1945 of the U. S. Dept. of Agriculture, Bureau of Agricultural Economics on shipment of package bees during the 1945 year, appeared on March 1.

A total of 1,227,000 pounds of package bees were shipped in 1945 which is 7% greater than the number in 1944 and prospective shipments for 1946 apparently will be an additional 70,000 pounds or 6% more than in 1945.

Out of the packages shipped, 40% were 2-pound, 54%, 3-pound and the balance either four or five pound.

Georgia led all other states with a total of 249,000 pounds of bees with Alabama, California, Louisiana and Mississippi and Texas ranking in the order named.

These shipments were made from some 233,000 colonies of bees or an average of about 5.3 pounds per colony. Again Georgia ranked first with an average of 8.5 pounds per colony, with Texas shipping only 3.0 pounds per colony due to the fact that Texas evidently shifted over to honey production earlier in the season.

The total of 874,600 queens were shipped in 1945 by the breeders or an increase of 7% over 1944. In queen shipments Alabama led all other states with a total of 193,200.

Annual Report of Illinois State Beekeepers Assn.

We are in receipt of the forty-third and forty-fourth annual report of the Illinois State Beekeepers' Association,

covering the fifty-third and fifty-fourth years of the Association. The association was organized February 28, 1891, at Springfield, Illinois. The present volume contains over two-hundred pages and the usual material, constitution and by-laws, report of meetings, code of rules and standards, bee diseases and many interesting articles from authoritative sources. Those interested should correspond with W. J. Hoyt Taylor, Secretary, Illinois State Association, Pleasant Plains, Illinois.

Reese Advanced

Charles A. Reese, inspector of apiaries for Ohio state has recently been promoted and now his title is Chief of the Division of Plant Industry for the State of Ohio with quarters as before at Columbus, Ohio.

We wish to compliment Charlie on his advancement and we know that he will do a good job.

We do not have any report as to whether he is to continue with bee inspection or just what the new set-up will be.

Best of luck to you in your new job, Mr. Reese.

Splendid Work on Caps for 60-Lb. Cans

We have just had a visit from Adolph Carm, who, single-handed and with tireless effort, finally secured the acceptance by the industry for the manufacture of a standard 2½ inch screw top with standard screw and

pitch for 60-lb. cans, making it now possible for at least the majority of the cans made to interchange caps or to secure caps for any cans that may have been bought from any manufacturer. This is a great improvement for those who use cans over again or for those who lose caps, or for any other reason need replacement or who purchase from various sources. Compliments to you Mr. Carm, a splendid piece of work and indication of leadership which you have developed in our industry. Mr. Carm is not a large beekeeper but frequently small beekeepers do most of the good work. Nevertheless, now we can no longer say that the officials are leading the industry entirely. At least the beekeepers are beginning to wake up.

Bee Insurance In Scotland

Various insurance schemes for protection of the beekeeper both against public liability, theft and fire and bee diseases have been in effect in various countries. The Scottish Beekeepers Association has recently instituted an insurance scheme available to all its members. Roughly it calls for a premium of 1 shilling or 20 cents for each member as a minimum amount. Each member may pay additional premium which gives them an additional insurance.

As compensation the protection against public liability in any one case shall not exceed 80 pounds or \$320.00, the compensation for loss from theft or fire shall not exceed 1 pound for the hive, 1 pound for loss of honey

and 10 pounds in the aggregate under any one claim.

The bee disease insurance depends upon the amount of premium paid. For each shilling (20c) paid, the insured may receive as high as 4 pounds (20.00) irrespective of the number of colonies owned. For each additional shilling paid, the additional 4 pounds would be available, the maximum being 30 pounds (120.00). The compensation allows 10 shillings (\$2.00) per comb of bees and brood in May and drops 2 cents per comb for each 15 days thereafter.

When the member has drawn compensation, he is ineligible for further compensation for a full calendar year.

According to Robert H. Skilling, the Convener of the Scottish Beekeepers' Association, the plan seems to be working extremely well.

New Book on Honey Plants

From England comes a new book, "Plants and Beekeeping," by F. N. Howes of the Royal Botanic Gardens. It is the first comprehensive review of the honey plants of Great Britain and a book of more than passing interest. While the book is designed for British beemen, many of our American sources of nectar are included.

To one who reads the book carefully it is at once evident that the author is very familiar with his subject and knows both his bees and his plants. It is interesting to note the difference in the way bees are attracted to some plants in this country and in England. Some which are important here are of little attraction to the bees under English conditions.

The book is nicely printed, cloth bound and has 34 illustrations. The number of pictures is less than have been used in American books of honey plants but those included are very good. The American Bee Journal will endeavor to secure copies for those of our readers who wish to buy the book which will probably cost about \$3.50 delivered in this country.

The book opens with a discussion of nectar and nectar secretion and such other subjects as pollen, propolis, honeydew and unpalatable and poisonous honey. The discussion of bee pasture is divided into two parts, the major honey plants and other plants visited by the honeybee. We recommend the book to anyone wishing to become familiar with this subject.

Honey from Sage



In the opinion of many the finest honey in the American markets comes from the sages. While there is a wide variety of sages well distributed over the temperate regions, most of the sage honey comes from the mountains of Southern California. The quality of the honey is of the best. It is water-white in color with heavy body and pleasing flavor. It is much sought by bottlers for blending with that from other sources because it does not granulate.

Where the plants are abundant as was formerly the case over large areas of California, the honeyflows at times are very heavy and remarkable yields were obtained. Crops of sage honey are harvested at irregular times usually not oftener than every other year. Bumper crops come less often with not more than one or two exceptional crops in a five year period. In a good year an average yield of 200 pounds per colony is commonly reported.

The garden sage which for centuries has been cultivated for its aromatic leaves used for seasoning foods, yields honey of similar quality but only in a few small areas where the plant is grown commercially is it available as bee pasture. There are several species also commonly grown as garden ornamentals which are equally attractive to the bees, which are probably nowhere sufficiently abundant to provide honey in worth while quantity.

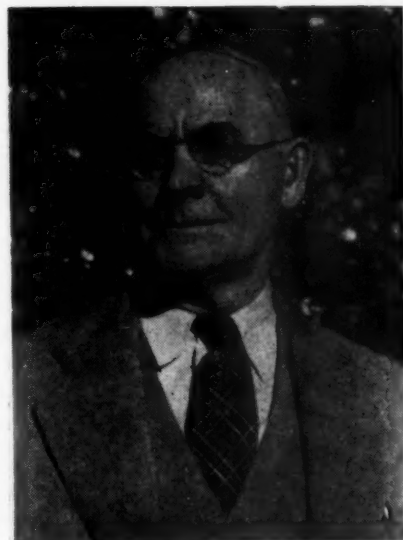
Painting Hive Stands

When painting hive stands after the finish coat has thoroughly dried I give the alighting board a coat of heavier paint (sediment from the bottom of the paint can is good); then spread clean dry sand evenly on the wet paint. When it is dry it makes a good neat-looking job and a fine landing field for the bees.

C. C. Callon, Indiana.

Men of Today:

Leonard Haseman



When Leonard Haseman used a shotgun to knock a swarm from a 60-foot limb to get it to settle lower down for a movie outfit, he earned the contempt of a Missouri beekeeper who watched nearby. Said the Missourian "I would have used a 22 rifle for that shot."

Haseman's memory of bees goes back to an Indiana farm when as a boy he had to go through his uncle's apiary which he says contained the "meanest and hottest" bees with which he ever had experience! Our subject comes by his stature rightfully as he was one of a family of seven 200-pound boys and as he says, two sisters of "goodly stature."

Years back folks from St. Louis used to drive back into the Missouri river hills to chop down bee trees to get honey and these hills yet contain hundreds of such "wild" bees. His old time beekeeping classes used to do the same and bring the bees back on the local branch of the Katy railroad, to the disgust of the passengers and conductor.

Haseman received his A. B. and

A. M. from Indiana University and Cornell University. His present occupation is professor of entomology for the Missouri experiment station, a full time job. Born in Linton, Indiana, he started work at Columbia in 1912 and among his publications are: Missouri Agricultural Experiment Station bulletins No. 138, 305, 482 and one on "Sulfa Drug for Controlling American Foulbrood," the latter probably having had the widest circulation and publicity.

He was married to Elosia B. Fish of Ithaca, N. Y. at Ithaca in 1910 and has three sons and two daughters, one deceased. Lt. Col. Leonard L. saw 30 months in Pacific and 12 in European service while Lt. Wilbur C. saw 14 months in Europe with Patton. His wife came by her interest in bees naturally as her father and one uncle were commercial beekeepers in New York state. None of the children were interested in bees but Haseman says all can consume their share of honey.

He prefers the three-banded Italians and the standard 10-frame hive

but has used many sizes in experimental work, including some of "ancient vintage." His work on the use of sulfa to control A. F. B. had wide circulation and this work will continue until it is established as to its full value for the purpose. He became interested in beekeeping classes when a goodly supply of equipment was given to the department, when more and more students began calling for beekeeping instruction and received the ardent co-operation of a local beekeeper. No wonder Missouri has been known for years for its continued practical work in beekeeping.

Kennith Hawkins.

Complaints on Package Bees And Queens

This is the "open season" on complaints against package bee and queen shippers. Any accumulation of dissatisfaction comes to a head about this time and the result is a prolonged correspondence between the receiver and the shipper or the complaint is diverted to the bee journals.

A few points should be noted by subscribers who patronize the advertiser. They are entitled to a prompt acknowledgment of their order and definite statement as to when the bees can be shipped or under what conditions. If there is any delay in the

shipments, then the buyer should be notified of it by the package shipper. If, owing to inclement weather or some other difficulty, the shipper is unable to deliver, he should offer to ship later on or return the money if desired. If there is no possibility of making shipment, money should be returned with proper explanations.

On the other hand, when the order has been properly entered by the shipper and the shipment is made, some things should be taken into consideration by the receiver. The shipment should always be accepted

with the absolute necessity that any damaging condition of the bees, such as dead bees or dead queens, be noted on the express receipt.

In the case of dead queens arriving in the packages or through the mails, these queens in their original cages should be returned to the shipper with the explanation that they arrived dead.

The express receipt showing damage or loss should also be mailed to the shipper of the bees with proper explanation on the part of the receiver and an idea of whether he wants re-

placement. The replacement should be preferred.

In all cases the return of the express receipt with full explanation of damage should be made immediately. Delays of a week or two are inexcusable. In this way the shipper may replace queens in time so that packages will not suffer beyond a minimum.

There always remains those cases where the queens do not turn out well and become drone layers, etc. Queens which are drone laying from the start

naturally show clearly that it is the shipper's duty to replace. In the case of queens which later become drone layers or do not build up satisfactory colonies, the question always arises as to whether or not the shipper should not at least stand the expense of a replacement queen.

Bear in mind, however, that safe delivery is all that can be promised and proper development of the package, or of the queen bee, as the case may be, cannot be guaranteed by the shipper although he should

make due allowance for satisfaction.

It is amazing, with the hundreds of thousands of pounds of bees and queen in cages that go through the mails, that complaints are kept to the minimum. We are agreeably surprised each year with the manner in which these bees are handled and the apparent cooperation between the shipper and buyer. Quite a change from 30 years ago when package shipments were new and difficulties arose quite often.

M. G. Dadant.

HOW TO DO IT

A Hive Lifter

An accumulated stack of heavy supers presents a problem to producers of section honey who like bottom-supering, or to any beekeeper who wishes to inspect his colonies for any purpose whatever. To save needless lifting and also avoid the great disturbance of a working hive of bees which goes with tearing down and replacing these supers some sort of hoist, or hive-lifting arrangement, is a necessity. The one pictured is probably not the last word in hoists; but it does the job and is adaptable to any kind of ground conditions The air is full of busy bees at work, but Gramp and Johnny (2½) are not being molested at all. This hoist is made by our company of Corning, Iowa. The firm is ready to supply specific details to any member of the beekeeping fraternity who prefers the pleasure of making his own hoist rather than purchase one.

T. B. Turner, Iowa.



scissors curve up so you can slip them right under her wings. There is no danger of hurting her in this way. Of course return comb then to its position in the hive.

E. C. Wyne, Illinois.

OLD COMBS ARE VERY BRITTLE IN COLD WEATHER

If you have any to prepare for rendering or shipping, put them in a box or barrel and chop them up fine with a spade. They require much less space this way.

Charles O. Handel, Illinois.

the brood is capped over and all other queen cells destroyed. Let the two queens cooperate until the next honeyflow is on and then destroy the old queen and interchange the two brood chambers. Or, as an alternate scheme, shake off the bees and young queen and allow them to run in below to bring about superseding.

E. S. Miller, Indiana.

REARING QUEENS IN A TOP STORY

Beekeepers who endeavor to rear queens in the top story by putting up brood with a ripe cell would have better success if a fine wire screen were placed underneath the top section, the wire to be replaced by a queen excluder after the young queen begins to lay. The ripe queen cell should not be introduced until all of

CLIP THE QUEEN'S WINGS

I use a pair of finger nail scissors and do not even catch the queen off the brood combs. The points of the

ANTS

Sometimes ants become so numerous that they are a pest. I do not believe they damage strong colonies but they may hold weak ones in check. Keep the bottom boards well painted. Place a sprig of catnip or tansy between the inner cover and the top cover. As a last resort, drive a nail at each corner of bottom board on the under side and place a bottle cap underneath nail head and fill each cap occasionally with old crank-case oil.

Harry T. Starnes, Indiana.

Turner rings the bell this time. Some of you other fans come in with your five dollar picture of how-to-do-it. Don't get discouraged if it is not used right away. It only takes one to the issue. But there are twelve issues a year and few get by. Each How-To-Do-It item, used without illustration, entitles you to a three-month subscription extension.

WOOD MINT

PERHAPS there is a bit of interest in the story of wood mint in the American Bee Journal honey plant garden. It indicates the amount of effort that is necessary to bring new plants of value into use.

In early summer of 1940 members of our staff found a clump of wood mint, (*Blephila ciliata*) near a small stream a few miles from Carthage, Illinois. It was taken to the test garden at Atlantic, Iowa and planted there on July 3rd.

The plant proved so very attractive to the bees that it seemed desirable to propagate a sufficient number to permit a test of its possible use through distillation. In 1944, several hundred plants were started in the greenhouse and planted in the open ground in May. On June 8 of this year Prof. Arthur Schwarting of the Nebraska College of Pharmacy visited the farm to harvest the plants which were then in full bloom. The distillation was started the following day and finished a day later. The net result was disappointing for only a very small quantity of an amber colored oil almost without odor was secured.

The final result of six years of effort is the discovery that the plant bears but little oil. As far as can be seen at this stage the plant will be of interest only to the beekeeper and as an ornamental garden flower. Not enough will be grown for ornamental purposes to help the bee pasture, so there is little to show for the time and expense given to the wood mint.

This is a good example of the results obtained from hundreds of plants observed in the test garden. The few that are promising encourage a continuation of the effort. In spite of many failures we feel confident that bee pasture can be greatly improved and that enough of success does come to make it all worth while.

THE POISON MENACE AGAIN

THE use of poison for the control of insect pests is constantly increasing. This season we are hearing of the dusting of corn fields in Iowa for control of the corn borer. Fortunately the dusting is done while the corn plant is small and not at the time when the bees will be visiting the corn plants for pollen.

Wherever poison is applied in wholesale quantity for the control of a pest, there is always the

THE WAY OF THE BEEKEEPER

We speak of the business of beekeeping, but beekeeping means of livelihood but it is also a way of life and a passion. Many thousands keep bees who do not depend on the intangible influence that seems impossible to describe. A tune with his environment and to give him a feeling of content in the abandonment of the former occupation for a new livelihood.

Ask any man why he is a beekeeper and he will tell you that the enthusiasm for the bees the more difficult it is to find the answer.

chance that useful insects will be killed at the same time. Poison is now used to such an extent and over such wide areas that the beeman has a very real problem to protect himself against some unexpected application which will prove to be a real threat.

The use of DDT is new and as yet not fully demonstrated. This new poison is coming into use in neighborhoods which heretofore have been free from any poison menace to the beeman. It is to be hoped that it can be used in such a manner as to protect the bees from serious harm.

To develop a program which will serve the one who must protect his crops and at the same time avoid injury to the bee requires cooperation of all interested agencies. It looks like the meeting of the interested parties after the manner of the honey plant committee might bring useful suggestions.

BOOM AND BUST

WE are following the familiar pattern of "Boom and Bust" that comes after every major war. Just now we are in the boom period when prices are high and money comes easy. The wise man will remember that boom is always followed by bust and prepare accordingly. Now is the time to pay ones debts, sell any property which he does not wish to keep for a long period, and store up some reserve against the day of adversity.

Honey prices are high now and the market demand is very keen. It is to be hoped that by means of strong organization the industry can escape the

OF LIFE

beekeeping is more than a business. True it provides a sense of values not always found with business. Association with the bees serves to put one in a state of content. In uncounted instances it has resulted in a dependence upon honey production for a

will find it hard to find a suitable reply. The greater his is the answer.

disastrous experience following world war number one when prices fell below the cost of production. By concerted group action it should be possible to avoid the worst of the consequences experienced in the 1930's. We must learn the value of strong organizations and give them the support necessary to meet the emergency when it comes.

STANDARD EQUIPMENT

PITY the poor supply dealer in Great Britain. We read that the committee on standardization of bee equipment there was faced with the necessity of considering the merits of no less than 26 different patterns of frames. Since no one hive seems to have attained a sufficient popularity, the dealer must be prepared to meet the demands of his customers for this large variety.

In this country only two hives are commonly offered for sale, the Langstroth and the Dadant. The Langstroth is offered in two sizes, the eight and the ten frame and there is much agitation for discarding the smaller of the two. The general use of a hive makes possible its manufacture in large volume and at consequently less cost than would be possible where it is necessary to stock many different kinds.

In England it has been argued that standardization tends to hinder initiative and progress. This is hardly the case, since the curiosity of the investigator refuses to be satisfied until he has demonstrated his idea regardless of the cost. Certainly progress in honey production has advanced fully as far in this country as in any other.

A DIFFERENT PROGRAM

IN looking back over the files of old bee magazines one is impressed with the fact that there has been little change in the programs of bee meetings for the past sixty years. The same old subjects are discussed year after year.

The recent meeting of the National Federation with its honey plant committee in a pollination and bee pasture conference marks a definite change. The discussion leader at every session was from some other field than beekeeping. Dr. H. B. Tukey is head of the Department of Horticulture in Michigan College of Agriculture. Prof. H. D. Hughes is professor of Farm Crops in Iowa State College. Dr. E. H. Graham is chief biologist of the U. S. Soil Conservation Service in Washington and Prof. Arthur Schwarting is on the staff of the Nebraska College of Pharmacy.

The success of a similar conference last year led to repeating again this year. It would seem that such men might well be invited to appear at other bee meetings. The baker who uses honey can tell an interesting story which may help the beekeeper to enlarge his market. The seed grower has a mutual interest in the prosperity of the apiary and the physician should be able to explain the place of honey in the special diet. There are so many who have something to contribute that at least one speaker who is not a beekeeper but who is interested in the beekeepers' product, should be included.

THE HONEYFLOW

HOW fortunate we would be if we could answer the questions that come to the editor as to what factors control the honeyflow. If we could tell when the flow will start, how long it will last, whether it will be heavy or light, the information would be invaluable. If we could tell in advance when the flow will fail it would be possible to move the bees to a more favorable location.

Once the factors that control nectar secretion are fully understood, it seems probable that much of the uncertainty will be removed from the business of honey production. Now that pollination is receiving serious study we may look for discoveries which will throw new light on this perplexing problem.



For the Ladies

When sultry August days make one hesitate to enter the kitchen, it is time to start considering alternatives. Heat or no heat, the family must eat, so why not plan a time and heat-thrifty meal that you can serve outdoors, either on the porch or on a picnic table in the yard. Surprise Meat Loaf is simple to fix and requires only 35-45 minutes baking time. Serve quantities of crisp potato chips and a large platter of sliced fresh tomatoes and cucumbers with the meat. Don't forget to have a bowl of Honey French Dressing on the table to pour over the vegetables. For dessert let your refrigerator do the work. Honey Parfait has just the right cooling touch to top off this warm weather menu. To make it extra special, sprinkle crushed peanut brittle over each serving.

Surprise Meat Loaf

1½ pounds ground beef
1 cup crumbled wheat shreds
1 cup cooked tomatoes and juice
1 egg
1 small onion,
1 teaspoon salt
1 teaspoon Worcestershire sauce
3 hard cooked eggs

Mix together lightly all ingredients except the hard cooked eggs. Place half of the mixture on the bottom of a loaf pan. Arrange the hard-cooked eggs lengthwise down center of the pan. Arrange and cover with remaining meat mixture. Bake in moderate oven (350°F.) for 35-45 minutes. Each serving will have a slice of hard-cooked egg in the center.

Honey Parfait

2 eggs, separated
Pinch of salt
½ cup honey
1 teaspoon vanilla extract
1 2/3 cups evaporated milk, chilled
(1 tall can)

Whether you call it Boston Cream Pie, Washington, Baltimore, or Martha Washington Cream Pie, this delicate cake dessert always makes good eat-

ing. When you serve it unfrosted, add an artistic note by placing a lace paper doily over the top of the cake and sifting powdered sugar through it. When you remove the doily, you will have a lace-topped cake.

* * * *

Institute News Notes

American Honey Institute, Commercial State Bank Bldg., Madison 3, Wis.

Now and then we should take time to analyze our product and our business.

What does Honey contain to make it a superb product?

What role does it play in nutrition?

* * * *

Every Honey producer owes part of his profit from the sale of honey to improving and enlarging his apiary, part to a research fund, and part to a publicity program on honey.

The percentage depends upon the size of the business. The needs of the family of the producers must also be considered. A practical budget will help carry out this plan.

* * * *

A letter was received at the Institute office from a woman in a town of about 2,000 population. She wrote, "Mr. B. is the only Honey producer in this town. It used to be that women could drive to his place and get a five-pound pail of Honey. During the past few years he packs the 2,400 pounds of honey he produces in sixty-pound containers and sells two or four con-

This is the time of year when you need a constant supply of ice cubes for cooling beverages. When you serve them in lemonade, add tiny sprigs of fresh mint to the water before it is frozen. For iced tea and coffee use cubes of the frozen beverage so that the flavor may not be diluted. Carbonated drinks can be frozen for added zest in fruit punch.

* * * *

While we are speaking of ice cubes, if the freezing trays tend to stick to the freezing compartment, cut pieces of rubber from an old glove or apron and place under the corners of the trays. They can then be easily removed without jarring the unit.

* * * *

There will soon be a new product to grace your breakfast table. It is a cereal made of dehydrated banana powder, corn and wheat flours. It will be marketed in the form of tiny bananas and is a ready-to-eat type of cereal.

tainers to a few customers. This means that only ten or twenty families in our town can get his honey. If there are many communities like this, it seems to me people will never learn the true value of honey."

* * * *

When August comes, we know that vacation for boys and girls will soon be over.

A small container of finely-crystallized honey of creamy consistency should be provided for the lunch box each day. It will become a popular sweet as well as a great energy food.

* * * *

Among the visitors at the office of Institute the past month were Dr. and Mrs. V. G. Milum and sons George and Richard of Champaign, Illinois, Dr. and Mrs. Lorch of Ames, Iowa, Mr. Gladstone Cale, Jr., of Hamilton, Illinois, Mr. Walter Cox, Sr., of Lansdowne, Pennsylvania, Mr. Walter Cox, Madison, Wisconsin, Mrs. Alma Gosch of Wall Lake, Iowa, and Miss Irene Staab of Hollywood, California.

Field Meeting at Atlantic

Over 400 were in attendance at the big field meeting under the auspices of the National Federation of Beekeepers Associations and its Honey and Pollen Plant committees which occurred at Atlantic, Iowa, on July 12 and 13. Twenty-three states, the province of Manitoba as well as officials at Washington, D. C., participated in the discussions.

The sessions were under the general chairmanship of W. E. Dunham, head of the honey, pollen and plant committee of the University of Ohio. George H. Rea and Mr. Collins, secretary of the Iowa Horticulture Society presided, and led the discussion at the first meeting in the absence of H. B. Tukey. The first session was devoted to "Honeybees in Orchard and Garden." The extreme value of honeybees in the orchard, garden and field was well brought out.

DDT was found to be apparently O.K. when not applied during bloom. It was pointed out that DDT should be applied to the fields in restricted territory and that dust should be eliminated and that improvements should be made in appliances for the application of the material. If possible a spray rather than a dust would be highly desirable on account of the drifting of the dust to other fields where even cattle and horses had been killed previously by the toxic effect of arsenates. There may be a possibility that DDT will be an improvement over the arsenates and other sprays, providing it is used in minimum toxic quantities.

Farrar reported that cranberries yielded far greater where bees were used in connection and experiments showed at least 32 per cent gain in the crop. Sweet cherries in Colorado also profit greatly by greater fertilization.

Pellett Gardens

The afternoon session was given over to a pilgrimage through the Pellett Gardens where over 1000 prospective honey plants have been tried. Some of the outstanding plants being considered now are the mountain mint which apparently yields in essential oils and is being tested at the University of Nebraska; Pellett Clover plants or seeds of which have been distributed to fifteen or more agricul-

tural stations throughout the country as well as to foreign countries. The Iowa State College experiment station is making a test of both the Wagner pea and Anise-hyssop. Several broadcasting stations in the central west had representatives as well as the R. B. Willson Company of New York, and educators prominent in the agronomy field. Broadcasts were made on the possibilities of relation of beekeeping and various branches of agriculture being improved.

After examination of the fields, Professor H. D. Hughes of Iowa State College of Ames, led the discussions on the "Relation of Honeybees and Legumes." One could not help but be struck by the desire on the part of agronomists, botanists and other state authorities to cooperate to the fullest extent in the development of this relationship. Already bees are being tested in concentration in red clover fields. Birdsfoot-trefoil was recommended as very highly desirable throughout all areas as it adapts itself well to the soils. A patch in its ninth year was observed in the Pellett Gardens. A very evident conclusion was that the farm interests would not be interested in any plant particularly for the beekeeper unless it, in turn, were of particular value to the farmer. It behooves the beekeeper, therefore, to work in the direction of plants which will not only yield nectar but be of highest value in the farm rotation.

Perhaps one of the highlights of the entire convention was the address of Dr. E. H. Graham, chief biologist of the Soil Conservation Service at Washington, D. C., on the subject of soil conservation and the honeybee. Dr. Graham anticipates a very opportune time has arrived for the correlation of the beekeeper and the soil conservationist. In fact, in many areas of the South where their soil conservation and control of erosion has already been instituted, while the value of the plants used has not been particularly stressed and only because the beekeeper and his interests has not been close enough in touch with the soil conservationists, there has, however, been a great possibility shown in the development of honey producing plants.

For instance, the Lespedeza bicolor, a woody shrub growing to a

height of 5 or 6 feet, has been used and has been recommended very highly for border plantings in fields where it is necessary to contain the soil to prevent erosion. This plant is of high value for honey production and adapts itself to practically all types of soil so it should be one of those recommended by everyone.

The necessity of soil conservation and the efforts of everyone towards it was emphasized by Dr. Graham. In less than 200 years of occupation of the United States, over 282,000,000 acres have been completely destroyed, and 780,000,000 acres partly destroyed out of total of something over two billion acres of tillable land.

We are still losing our top soil at the rate of 500,000 acres a year. Naturally the conservationist is highly concerned over the necessity of permanent pastures, proper crop rotation, coverage of spoil banks and gulleys, farming on the contour, etc., for the preservation of the land and its build-up at the same time. It was brought out in a subsequent discussion that every apiary of bees has within its two mile flying range, at least 100 acres of roadsides, besides the uncultivated smaller areas. If all of this were planted to plants which would not only maintain satisfactory roadsides but at the same time conserve the soil and feed the bees, we would have sufficient nectar to insure us of continuity in our honeyflows. The planting of the proper shrubs and trees in such a manner has, as yet, been practically untouched.

Here is one place when the National Federation and its committee working through its local Associations can, we believe, do as great good as any, by recommending proper shrubs, plants and trees for such planting. It resolves itself however, into a job for the local beekeepers associations and the local beekeepers working through their organizations and through the state to get such efforts into the proper channels to encourage such plantings.

The last afternoon was devoted to discussion of "New Sources of Nectar," with a general discussion followed by business meetings of the Honey, Pollen and Plant committee, Beekeeper's Rights Committee, Re-

(Please turn to page 334)



HONEY DATE NUT CAKE

$\frac{7}{8}$ cup evaporated milk	$\frac{1}{2}$ teaspoon cloves	$\frac{1}{4}$ cup honey
1 teaspoon vinegar	$\frac{1}{4}$ teaspoon salt	$1\frac{1}{2}$ cups sliced dates
$1\frac{3}{4}$ cups sifted flour	$\frac{1}{2}$ cup shortening	1 cup nutmeats
1 teaspoon soda	$\frac{1}{2}$ cup sugar	
1 teaspoon cinnamon	1 egg, beaten	

Add vinegar to milk. Sift flour with soda, spices and salt. Cream shortening, add sugar, and cream until light and fluffy. Add beaten egg and honey and mix to blend. Add milk to egg mixture, alternately with dry ingredients that have been mixed with dates and nuts. Pour into a tube or loaf pan lined with waxed paper. Bake in a moderate oven (350°F.) about one hour. Yield: 1 9-inch tube cake.—American Honey Institute.



DONUTS WITH HONEY-BUTTER SAUCE

Heat 1 cup strained honey with $\frac{1}{4}$ cup butter. Stir over low heat until butter is melted and blended with honey. Stir in $\frac{1}{4}$ teaspoon cinnamon and a generous dash of nutmeg. Serve over plain donuts.—American Honey Institute.

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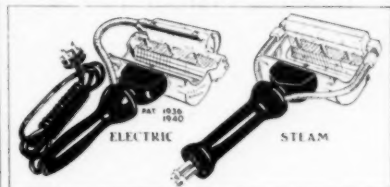
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When Writing Our Advertisers
Please Mention the Bee Journal.



This picture by Pauli, (Colorado), is a flowered version of the bee yard even to the accommodating bird. Here and there we find apiaries made beautiful but too often they are just plain dirt variety with long grass for adornment.



I. C. Evans, Decatur, Illinois, went visiting way down south. He sends this picture. To protect the hives from the sun, here is one variation of the ramada.



Modern bee house of Gustav Drnes, former Chicagoan, now living in Czechoslovakia.

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Small Stock (rabbits, caviae exclusively)	1.00
American Rabbit Journal	1.00
California Rabbits, monthly	1.00
Rabbit News, (Calif.) monthly	1.00
International Commercial Rabbit Journal, monthly	1.00

OTHER SPECIALTIES	
The Soybean Digest	1.50
New Agriculture (sugar beets only)	2.00
Small Commercial Animals & Fowls Co-operative (Farmers) Digest, monthly	2.00
Modern Game Breeding, monthly, pheasants, wild waterfowl, etc.,	3.00
Game Breeder and Sportsman, m.	2.50
Canary Journal, monthly	2.00
Canary World, monthly	1.25
Black Fox Magazine, fox, mink, m.	2.00
World-Wide (Stamp) Swapper 3 years	1.00
Embers, B-M., Verse, Liter.,	2.00
Tailwagger, m. (Dogs)	2.50

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Meetings and Events

Washington State Association, Aug. 3

The Washington State Beekeepers Association will hold their first post-war picnic, Saturday, Aug. 3 at Lake Tipsoe near the summit of Natches pass. An entertainment program will follow a pot-luck dinner at noon.

There were four feet of snow at Lake Tipsoe on July first but the temperature by picnic day will be just right for the enthusiasm and friendliness which is always characteristic of the midsummer meeting.

Possession of an attendance banner will be given to the local association having the largest score on a pro-rata membership-mileage basis.

Bring your lunch, your friends and your overcoat.

H. S. Records.

Annual Red River Valley Beekeepers Picnic, August 4

Held at Central Park, Crookston, Minnesota, first Sunday in August every year or at Sports Arena if it rains. Bring a lunch and your friends. Sports, contests, baseball. Evening movies. If you are a movie fan, bring your films. We always have a good time and will be looking for you.

The Committee.

Ohio—August 7

The Ohio bee summer meeting is scheduled for August 7 and 8 at Marion. Banquet evening of August

Field Meeting at Atlantic

(Continued from page 333)

search Committee and the Executive Committee.

One could not but be impressed by the high type of the discussions and the great possibilities ahead for the beekeeping industry if proper contact is made with the various state authorities like Highway Departments, Soil Conservation areas and State and National agronomists.

The meeting should be repeated in all areas of the United States with a particular discussion of the possibility of the honey plants of that section being distributed through these means.

7. Out of state speakers and state talent offers an attractive program. Cordial invitation extended to all beekeepers to attend.

W. E. Dunham,
Columbus, Ohio.

South Carolina Short Course—Aug. 6

E. S. Prevost, extension bee specialist announces short course in beekeeping at Clemson College for August 6th and 7th.

ILLINOIS STATE FAIR

1946 will see the resumption of the Illinois State Fair, the greatest show on earth and the most valuable. And as with the beekeepers meetings—now is a good time to make the initial plans to attend. Naturally there will be a great exhibit of bees and honey to attract beekeepers as well as the old familiar midway with its dancing girls and thrill rides. The fair offers many advantages for visitors and one would do well to write the manager, Mr. Jake Ward, requesting a premium list which also contains other information in regard to activities and privileges extended state fair visitors. Dates of the fair are August 9 to 18 inclusive.

Empire State (N. Y.)—Aug. 10

The summer meeting of the Empire State Honey Producers' Association will be held August 10th at Taughanock Falls State Park on Route 96 or 89 near Ithaca, New York. This is a beautiful spot with all picnic facilities. A good program has been arranged and all beekeepers, their families, and friends are invited.

Edward T. Cary,
Secretary-Treasurer.

New Rochelle (N. Y.)—Aug. 18

The New Rochelle Beekeepers Association will hold its next regular monthly meeting at 2:30 P. M., on Sunday, August 18, 1946, at the Allen Reservation Boy Scout Camp, Mamaroneck Avenue, Harrison, N. Y., under the direction of the scout ranger Mr. Walter Littlefield.

Hives will be opened and inspected

and bee problems and questions will be answered by the Mutual Assistance Committee. After the meeting, refreshments will be served.

B. F. Miller, Publicity.

Pennsylvania Short Course— August 19-24

Registrations are now being filed for the first Short Course in Beekeeping ever offered at the Pennsylvania State College, A. L. Beam, director of short course announced. The instruction, designed primarily for the 30,000 individuals keeping bees in Pennsylvania, is scheduled for August 19 to 24, inclusive.

E. J. Anderson, of the School of Agriculture faculty in charge of apiary research, will be in charge of the course. Instruction will include seasonal management of hives throughout the year; extracting and bottling of honey methods; queen rearing; marketing methods and problems; disease control and use of package bees. Most of the course will be conducted in the college apiaries and laboratory, Prof. Anderson announced.

For the final day of the course, arrangements have been made to have George Rea, of Reynoldsville, Pa., lecturer for the National Federation of Beekeepers Associations, address those taking the short course. Rea is former extension apiary specialist of Pennsylvania, New York, Tennessee and North Carolina, and served in various capacities for beekeeping interests prior to his retirement a year ago.

Persons interested in the short course in beekeeping are urged to write directly to A. L. Beam, director of short courses, the Pennsylvania State College, State College, Pennsylvania, for complete details. Early registration is urged because of existing housing conditions in the State College area.

Program Committee Busy On That National Meeting

A. D. Hiatt of Lynchburg, Virginia, has written to this office stating that his committee is busy planning the program for the combined National and Southern Federation meetings which are to be associated with the Georgia and the Florida state meetings at Tampa, Florida.

Mr. Hiatt states that the dates have been definitely set as January 12 to 17 and that more details of the plans for the meeting will appear each month in the bee magazines.

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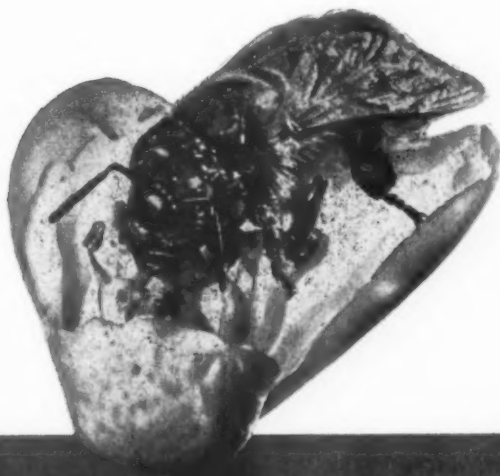
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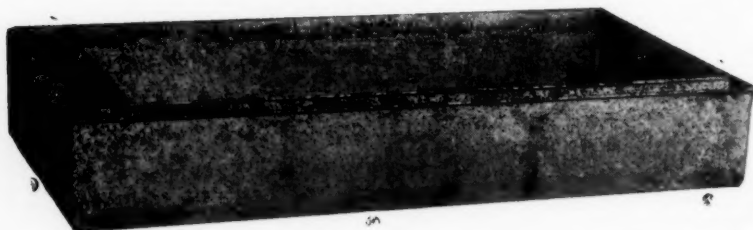
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Sulfathiazole used in feed at no extra cost to you. MASTER MIX POLLEN made from soybean flour, cottonseed meal, brewers yeast, skim milk, natural pollen, invert sugar and Sulfathiazole, 10-lb. pail \$2.50; six pails \$13.50. Send for FREE Circulars.

Blue Bonnet Apiaries, R. 2, Box 23, Weslaco, Texas

Kansas State Meeting, Iola—Aug. 11

The Kansas State Beekeepers Association will hold its forty-fifth annual summer convention at Iola, Kansas, August 11th, 1946, all day Sunday at city park. Business meeting and election of officers at 11 o'clock. Basket dinner at noon. Program in the afternoon. Three hundred invitations are being sent out to Kansas beekeepers. You are one of them. Of course we need you. And you need the association.

Come and bring your fellow beekeeper.

W. N. Cline, Secretary.

Bronx County (N. Y.)—Aug. 11

The Bronx County Association will hold its next regular monthly meeting at the home of Henry Kroger, 3661 Eden Terrace, Bronx, Sunday, August 11, 2:30 P. M.

Our annual clam bake will be called off this year. Instead we will substitute with a Corn Roast and refreshments. If you have any bee problems this is the place to have them solved.

Sam Roberts, Sec.

3302 De Lavall Ave, Bronx.

1945 Iowa Report

The 1945 Report of the State Apiarist of Iowa has been received from the printer and is available for distribution. This publication is sent free upon request to any beekeeper. The report this year consists of 96 pages. The report carries a complete set of the papers which were presented at the meeting in July 1945 at Atlantic of the Honey Plants and Pollen Committee of the National Federation.

F. B. Paddock,
Extension Apiarist.

Farmer-Beekeeper Cooperation Meeting In California

By S. E. McGregor, U. S. Department of Agriculture. Agricultural Research Administration Bureau of Entomology and Plant Quarantine.

A precedent-setting meeting was held in Blythe, California, February 7, 1946, pertaining to the relation of the farmer to the beekeeper. The farmers were told of the consideration that had been given to the bee industry the last few years, not so much for the wax and honey produced, as for the part the bee plays in pollination and seed production. They were told of the value of the bees in the pollination

of melons and alfalfa, two important crops in the Blythe area, and that without pollinating insects these two crops could not profitably be grown. Explanation was made of losses of bees from insecticides applied to crops in the area, and of the effect this loss might have on reduced melon and alfalfa seed crops.

The beekeepers reported the following:

Total colonies in the area around Blythe	6,350
Colonies killed by the 1945 crop dusting	1,100 (18%)
Colonies weakened by the poison and about to die	1,900 (31%)
Total colonies already dead or about to die	3,000 (49%)
Colonies weakened but which will survive	2,025 (30%)
Total colonies affected	5,025 (79%)

The reports from these beekeepers indicated that the poisoning was connected mainly with the dusting of young lettuce, except for three apiaries that were poisoned by the dusting of corn with calcium arsenate for the control of the corn earworm (a method that was not recommended and did not give control of the insect). All other apiaries were reported in good shape about the first of October but started showing signs of poisoning shortly after that date. The lettuce was dusted during October.

J. E. Eckert, the University of California apiarist, reported that samples had been obtained from several of these apiaries and analyses had shown arsenical content sufficiently high to indicate that this poison had caused the death of the colonies. He explained that the colonies probably were killed in connection with the dust application when the dust drifted onto blossoms around the fields, where it was obtained by the bees and carried back to the hives with the pollen, and that under such conditions its effect on the hives might be seen for months. Bees are not attracted to young lettuce plants. He also reported that DDT had been applied to alfalfa in the Blythe area the preceding summer without damaging bees, and that great increases in seed had been obtained.

H. M. Krebs, the state bee inspector, explained the difference in the effects of poisons and diseases in the hives and compared the extensive damage being done to the bee industry by insecticides and bee diseases.

The county agent spoke of the crops in the area, of the insects and insecticides, and repeated that melon

and alfalfa seed crops could not be grown profitably without the use of pollinating insects.

The beekeepers explained that they were not trying to stop the use of insecticidal control but hoped that a way could be found whereby less toxic material could be used so they could still obtain their honey crop and also render the services of the bees to the growers.

The alfalfa and melon growers were outspoken in their opinion as to the necessity of the bees, and reported that they did not realize the damage that had been done. They agreed to stop using arsenic, were much concerned about the bee losses, and wondered if sufficient pollinators were left to insure crops. They further offered such inducements as apiary sites and shelters to have bees as near their fields as possible. The alfalfa growers agreed to dust their alfalfa only with DDT or other dust not known to be toxic to bees, and to dust during the pre-bloom stage. Cryolite was recommended by the county agricultural inspector for use on the melons and lettuce.

Two local insecticide dealers were present and expressed their desire to cooperate by recommending materials less toxic to bees wherever possible. They, too, had not realized the extent of damage being done to bees.

A representative committee, including two alfalfa growers, two melon growers, two vegetable growers, two beekeepers, one insecticide salesman, the county agent, and the county agricultural inspector, was appointed to watch over the dusting and control it in that area. This committee, headed by the county agent, will meet once a week to issue recommendations for proper dusts and dusting. The general feeling was that this committee would be of benefit to the growers in their recommendations and notices of insect outbreaks, and to the beekeepers by warning them when arsenicals were required so that they could take proper precautionary measures, and that proper use of dusts would bring better efficiency resulting in increased sales for the insecticide men.

The meeting ended in a spirit of harmony. The beekeepers felt that they would be able to continue operating in the area, the growers were assured pollination of their crops, and the insecticide men were pleased.

Oklahoma Association

On March 19 -about fifty bee

keepers met in Oklahoma City to organize the Oklahoma State Beekeepers' Association.

There was much interest in the meeting about the use of sulfa drugs, migratory beekeeping, state laws, about bee traffic and the effects of DDT and other economic poisons on bees.

Glen Gibson, 2113 Cashion Place, Oklahoma City was elected President; V. R. Oliphant, 1715 N. W. 33rd, Oklahoma City, Vice-President; Clyde A. Bower, Secretary-Treasurer.

Clyde A. Bower, Director
Div. of Entomology and
Plant Ind.

Delaware

The Delaware State Beekeepers Association held its first post-war meeting at the apiary of G. H. Latham near Wilmington, Delaware, on the afternoon of June 22, with an attendance of 47. Doctor Robert S. Filmer, Specialist in Apiculture with the New Jersey Agriculture Experiment Station, was the speaker, and discussed the many problems which are encountered by beekeepers in "Successful Apiary Management."

L. A. Stearns,
Extension Entomologist.

Texas Association

The Texas Beekeepers Association and Texas Beekeepers Auxiliary held their annual meeting at Hotel Washington, Greenville, Texas, June 10-11, 1946.

A fine program was presented, which included several out of state speakers. The meeting was well attended and much enthusiasm was shown.

Officers elected for the coming year are: J. Claude Wilson, North Pleasanton, President; Jas. Petty, San Angelo, Vice-President; W. C. O'Neal, Emhouse, Secretary-Treasurer. The Auxiliary elected Mrs. Hugh Shofner, Greenville, President; Mrs. Jas. Petty, San Angelo, Vice-President; Mrs. Howard Weaver, Navasota, Secretary-Treasurer.

Tinsley Bee Books

We have just received a small shipment of a 100 page cloth bound book, "Beekeeping Up-to-Date," by Joseph Tinsley, the noted British authority on beekeeping. The book was reviewed recently in our columns. Such copies as we have on sale are priced at \$1.25 postpaid to those interested.

It is never too late

to get the help which is available to you in daughter queens of "DR" stock. It will be a real help in your fight to control American foulbrood.

The performance of this stock is why beekeepers are placing repeat orders for larger numbers of queens. Satisfaction is what you get with the use of this stock.

This stock has been improved each year by scientific selection. No other stock can offer the quality of parentage, of rearing methods and of apiary testing service. So why not buy those queens which will give you the greatest value.

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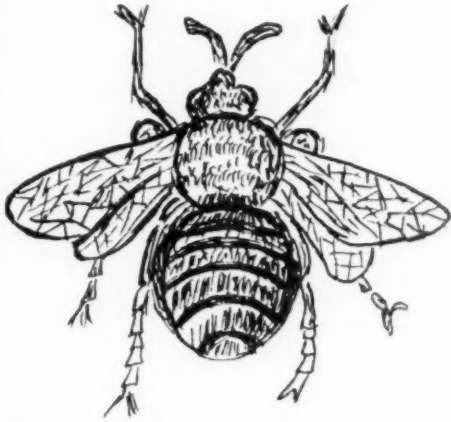
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Lots of them from now until October

We believe our strain of bees is good. We believe our method of rearing queens is good; and we believe the queens which we send out are good but we want you to be the judge. So if you ever get a queen from Stover's which does not satisfy you, remember you can always get her replaced or your money refunded.

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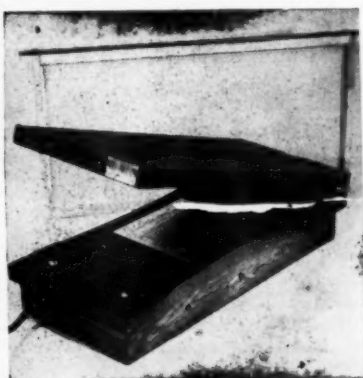
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DR. PHILLIPS
RETIRES

By E. J. Dyce

(Received too late to be placed forward.)

DR. E. F. PHILLIPS of the New York State College of Agriculture at Cornell University, Ithaca, New York, retired from active duty June 30 and became Professor of Apiculture, Emeritus. He has been at Cornell since 1924.

As head of the work in Washington he began to develop the much needed scientific work, and enlisted the help of such men as White, Snodgrass, Nelson, Sturtevant, McIndoo, Casteel and Gates, whose names are familiar in the world of beekeeping. In 1911 he was joined by Demuth, and the two formed a team that undertook work on the most difficult and most important problems in beekeeping.

During the first world war Phillips and Demuth conducted an intensive campaign to stimulate beekeeping, primarily by changing from comb honey to extracted honey production. Commercial honey production increased in that period about 400%, but since there was no price control or allocation of sales, honey was extensively used by manufacturers and the normal market was lost, so that later there was a depression in the industry from which it took some time to recover.

Besides the earlier men listed, others took part in the work in Washington, and beekeepers are familiar with the work of McCray, Sechrist, Nolan, Cale, Shaftesbury, Bertholf and Lineburg. Beekeepers everywhere know that Hambleton was in that group, since he took over and has successfully administered the work since 1924. During the first war extension work in beekeeping was begun, and the work was so successful that it was continued in many states.

Doctor Phillips is editor of the apiculture section of Biological Abstracts and has twice served on the editorial board of the Journal of Economic Entomology. He is author of "Beekeeping," published by the MacMillan Company, which has been translated into Russian. He has written more than 600 bulletins and articles for technical and scientific journals, and several of these have been translated into other languages. He has maintained correspondence with leading beekeepers all over the world and his students are now in charge of important phases of beekeeping in China, India, Union of South Africa, Czechoslovakia and Canada. He has visited Europe four times and has studied the work of leading investigators in Switzerland, Austria, Germany, England, Scotland, Yugoslavia, Czechoslovakia, Cuba, Mexico, Puerto Rico and Hawaii.

In 1932 at the invitation of the government he visited the Soviet Union to assist in beekeeping aspects of the Second Five Year Plan, at which time he and Mrs. Phillips travelled extensively in that country.



He was responsible for the establishment of the Miller Memorial Beekeeping Library at the University of Wisconsin and built up a similar library in the Bureau of Entomology. On going to Cornell he again started a beekeeping library and arranged for an endowment for its perpetuation.

Rotarians everywhere know him as well as beekeepers do, and he has not missed a weekly Rotary meeting for thirteen years. He was president of the Ithaca Rotary club and immediately became governor of former District 28 of Rotary International. The next year, 1936-37, he was chairman of the International Service Committee, and in 1939 was elected director and third vice-president of Rotary International. He has spoken before many clubs and was speaker at Rotary Institutes of International Understanding in several states. Following their usual customs, Rotarians call him "Frank," but New York beemen still call him "Doc."

His greatest satisfaction is doubtless in his family. He and Mrs. Phillips have three sons and three grandsons. Frank, Jr. is promotion director for the Standard Oil Company of New Jersey and lives in Darien, Connecticut, with his wife and son. Dr. William T. ("Bill") is rubber consultant and a division chief in the Department of State, Washington, and lives with his wife and two sons in Alexandria, Virginia. Howard is personnel director and production manager of the Washington Institute of Technology, College Park, Maryland, and has just announced his engagement. Mrs. Phillips is editor for the College of Home Economics at Cornell and is the author of numerous books for children, among which is "Honeybees and Fairy Dust." All three sons attended a dinner given in honor of Doctor Phillips by his University associates and downtown friends on July 19.

If you imagine that Doctor Phillips expects to drop out of work, that is an error. He will continue to live at 508 Stewart Avenue, Ithaca, where one may catch him if he is not off on some civic activity, away at a Rotary meeting or doing something for beekeepers. It will be fun to be free of official obligations.

HONEY WANTED

WHITE AND AMBER EXTRACTED WANTED

We pay highest OPA ceiling prices. Prompt remittance.

BEESWAX

Send for shipping tags.

We are always buying and paying the highest market price.

OLD COMBS AND CAPPINGS

We use steam hydraulic presses that extract 100% of the wax and our rendering charges are very nominal. We charge only 2 cents a pound for wax rendered when your shipment of old comb weighs 100 lbs. or more; 3 cents a pound on smaller shipments. Send for shipping tags.

WAX WORKED INTO FOUNDATION

You save Big money having your wax worked into foundation. Send for our money-saving prices.

QUEENS

Ultra Violet Ray treated produce gentler bees. 20 to 45% more prolific. You'll want to head all your hives with treated queens. Price \$1.25 each, cash. Worth much more.

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3-lb. package Bees and Queen, \$5.00, plus postage. Prompt shipments.

Send for our money-saving catalog

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Sixty Pound Cans



Two in a wood case
One in a corrugated case



WRITE FOR PRICES

C. W. AEPPLER COMPANY

Oconomowoc, Wisconsin

Classified Advertisements

BEES AND QUEENS

REAL FETS—Brown's non-stinging bees. 1947 queen price \$2. Booked up this season. Thank you. Brown's Apiary, Cape May Court House, N. J.

THREE-BANDED Italian queens—1 to 25, \$1.10; 25 up, \$1.00 each. Alamance Bee Company, Graham, North Carolina.

CAUCASIAN QUEENS—Orders booked for delivery during the last of August and all of September. 1 to 10, \$1.25; 10 to 49, \$1.10; 50 and over, \$1.00. Howard E. Crom, Rt. 1, Box 75, Ripon, California.

MINNESOTA and Northern Iowa beekeepers contact us now for 100% full colonies on 9 combs in spring of 1947. Reppert's Honey Farms, Rt. 5, Shreveport, Louisiana.

3-Banded Queens \$1.00 each. Dalice E. Crawford, Haw River, N. C.

BREWERS LINE-BRED CAUCASIAN QUEENS—BREEDING stock selected from 1000 field tested colonies for honey production and gentleness. \$1.00 each, by air mail, postpaid. Brewer Brothers Apiaries, 3217-A Hawthorne Road, Tampa 6, Florida.

ITALIAN QUEENS—Satisfaction assured. 1.00 each. Write for quantity prices. Lange Apiaries, Llano, Texas.

GOLDEN ITALIAN QUEENS best of quality. Health certificate with every order. \$1.25 each, any number. Carolina Bee Farm, W. O. Curtis, Mgr., Graham, North Carolina.

ITALIAN QUEENS selected for winter hardiness, production, non-swarming and resistance to A. F. B., \$1.25 each. Air mail extra. Ready June 15. R. E. Newell and Son, Medway, Massachusetts.

PACKAGE BEES, QUEENS, Italians, Circular free, Crenshaw County Apiaries, Rutledge, Alabama.

CAUCASIAN and CARNIOLAN queens, June 10th to October 1st, untested, one \$1.00; one hundred \$90.00. Tillery Brothers, Greenville, Alabama.

GOOD QUEENS FOR SUMMER AND FALL REQUEENING. Gentle three-banded Italian stock that has made outstanding records for honey production in areas where large crops are made. We now have the experienced help necessary to give you good queens and prompt service. Select young laying queens, \$1.10 each; 25 to 99, \$1.00 each; 100 or more, 90c each. Postpaid. Also package bees from now until October. They make fine summer increase. H. C. Short, Fitzpatrick, Alabama.

HONEY AND BEESWAX WANTED

WANTED—Honey, comb, extracted or what have you. Highest prices paid. F. E. Hyde, New Canton, Illinois.

WANTED—Your honey, any amount. Will give top prevailing prices. Herald Partello, Rt. 2, Boone, Iowa.

INTERESTED in the purchasing of any quantity of honey at ceiling price. DeSoto Candies, Inc., P. O. Box 1475, Miami 35, Fla.

WANTED—Honey, strained, chunk or section. No amount too large nor too small. Top price. Spot cash. Lose Brothers, 206 E. Jefferson St., Louisville 2, Ky. Call J-A 1015 collect.

WANTED—Clover extracted and comb honey. Any quantity. C. Jankowski, Prairie View, Illinois.

HONEY WANTED—All grades and varieties. Highest cash prices paid for a can or a carload. Mail samples. State quantity. Clover Bloom Honey Company, Box 276, Minco, Oklahoma.

WANTED—Extracted honey, white or amber, in 60's. Also section and chunk honey. S. N. Grimwood, 1610 Harmony Way, Evansville, Indiana.

WANTED 100,000 lbs. of clover honey. Will pay highest cash prices. Guy Polley, Nevada, Iowa.

COMB HONEY—Please advise quantity you have, size section and how packed. I also need chunk honey in 16 oz. glass. E. H. Hauck, P. O. Box 84, Kew Gardens, N. Y.

HONEY AND BEESWAX, HIGHEST PRICES PAID. MAIL SAMPLES, ADVISE QUANTITY. BRYANT AND SAWYER, LOS ANGELES, CALIFORNIA.

HIGHEST CASH PRICES paid for all grades extracted honey. Prairie View Honey Co., 12303—12th St., Detroit 6, Mich.

WANTED—Light, extracted honey, clover preferred, in 60's. J. Jones, 115 West 82 St., New York 24, N. Y.

HONEY WANTED—Top prices paid. Write immediately. J. Wolosevich, 6315 So. Damen Ave., Chicago, Illinois.

WE DARE YOU to sell us some honey cause we punish you with the highest price possible. Oh, you don't remember the name? Just ask the missus; she remembers your Honeymoon. The Honeymoon Products Co., 39 E. Henry St., River Rouge 18, Mich.

WANTED—Extracted clover honey in 60's. B. I. Evans, Windom, Minnesota.

CLOVER HONEY WANTED in 60's. Large or small lots. Send sample and state quantity. Ellsworth A. Meineke, Arlington Heights, Illinois.

HONEY WANTED—All grades, carloads or less. Also beeswax. Pay top prices. H. & S. Honey & Wax Company, Inc., 245-247 Greenwich St., New York 7, N. Y.

WE PAY CEILING PRICES for wax, and remit the day the wax is received. Your wax made into medium brood foundation at 12 c per lb. The Hawley Honey Co., Iola, Kansas.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

WANTED—Extracted honey, white or light amber, in 60's. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

HONEY WANTED—Small or large lots. Send sample and amount. Rocke Apiaries, Eureka, Illinois.

CASH FOR YOUR WAX the day received. Write for quotations and shipping tags. Walter T. Kelley Co., Paducah, Kentucky.

SUPPLIES

FOR SALE—REIF-RAPPED" CUT COMB HONEY CARTONS 4 1/2 x 4 1/4 x 1 1/4, \$18 per M; \$2.00 per 100. For August 1st shipment. F. O. B. Kalona. Avoid delay by sending check. E. H. Reif, Kalona, Iowa.

WARNING N. W. BEEKEEPERS—Glass and tin honey containers continue to be very difficult to obtain. Don't get caught short again this fall. Order at least part of your container requirements NOW. You'll be glad you did. Send for price list. HONEY SALES COMPANY, 1806-08 No. Washington Ave., Minneapolis 11, Minnesota.

FOUNDATION—Crimp-wired Brood and Super foundation, Thin Surplus and Cut Comb. Simeon Beiler, Intercourse, Pa.

ATTENTION BEEKEEPERS IN MINNESOTA, Wisconsin, Iowa, N. D. and S. D. Buy Lewis-Dadant Bee Supplies and Honey Containers in Minneapolis and save. Send for price lists. TOP PRICES PAID FOR HONEY AND BEESWAX IN CASH OR TRADE. HONEY SALES COMPANY, 1806-08 No. Washington Ave., Minneapolis 11, Minnesota.

WRITE FOR CATALOGUE. Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

INSTANT SEVEN AND NINE FRAME SPACERS. Fast—Accurate. Fat combs, easy uncapping. Set does all supers. \$1.50 postpaid. SPECIFY SIZE. George Lays, 48 Drake Avenue, New Rochelle 2, New York.

PORTER BEE ESCAPES are fast, reliable, labor savers. R & E. C. Porter, Lewistown, Illinois.

LARGE CASH SAVINGS can be made by letting us work your wax into either wired or plain foundation. Large independent factory manufacturing a complete line of bee supplies including extractors, etc. Selling direct saves you the agent's profit. Quick shipment from large stock. Large free catalogue explains everything. Walter T. Kelley Co., Paducah, Kentucky.

FOR SALE

FOR SALE—Entire beekeeping business, consisting of about 900 colonies of clean bees and equipment. Excellent locations, and central extracting plant. Also modern home, suitable for a tourist home if desired, located on main highway in village of Union Springs on Cayuga Lake. Frederick D. Lamkin, Union Springs, New York.

FOR SALE—Bee hive supers 10 frame, extractor, and steam uncapping knife. Percy Harpster, St. Peter, Illinois.

FOR SALE—35 colony apiary located near Appleton, Wisconsin. Write Clarence A. Discher, 1201 Seventh Street, Oshkosh, Wis.

FOR SALE—20 acres—Modern home bee apiary. Excellent location; 10 miles north of Ionia on 66. Clay White, Rt. 2, Fenwick, Michigan.

FOR SALE—Approximately two hundred cases 5 lb. glass syrup jars. 20c per case f. o. b. Menasha. Gear Dairy Co., Menasha, Wisconsin.

FOR SALE—Up to 300 colonies bees on wired foundation and factory made hives. In July and August can deliver also 1000 shallow supers with wired foundation combs. Box K-11, Iliopolis, Illinois.

HONEY LABELS—Improved designs, embodying color, balance, simplicity and distinction. Please send for free samples and prices. C. W. Aepler Company, Oconomowoc, Wisconsin.

BEEKEEPER'S HOIST weight 45 lbs. A neat 10 ft. folding tripod with block, winch, sling and clamp. \$25.00 f. o. b. Turner Mfg. Co., Corning, Iowa.

CLIP QUEENS without handling. **SIMPLEX TRAP** removes queen from hive, holds her in position for clipping elsewhere, without annoyance of flying stingers. \$1.75 postpaid—Free circular. George Lays, 48 Drake Avenue, New Rochelle 2, N. Y.

WANTED

WANTED—Old out of print bee books. We have calls from libraries, etc. Let us know what you have and we will quote price. American Bee Journal, Hamilton, Illinois.

WANTED—Radial type extractor 20, 21 or 30 frame. Good condition. Walter Stubbs, Soperton, Wisconsin.

WANTED—Going bee outfit. Please write fully. Box 385, care American Bee Journal.

WANTED (Continued)

WILL BUY 300 to 1000 colonies and supers with or without crop. Standard equipment. Write stating condition, location, price and reasons. Box AB, care American Bee Journal.

WANTED—Small fruit farm with bees which one man can operate without outside help. Write everything, price, terms, yearly income. S. Schwartz, Box 546, Lake Forest, Illinois.

WANTED—300 or more colonies of bees on shares for 1947 beginning now. Good equipment necessary. Twenty years' modern beekeeping experience, outyards and queen rearing. Hubert Martin, Corinth, Ky.

LADY and son 8, want place to live this winter. Prefer South or West. Must be close to good school. Mrs. Gladys Warner, Pennock, Minn.

WANT TO BUY—Modified 11 frame supers, Rudolph Schilling, Freeburg, Illinois.

WANTED—Senior Brand cappings melter. State year made, condition, price. A. T. Uzzell & Sons, Moore Haven, Fla.

POSITIONS WANTED

WANTED—Job with commercial beekeeper in South. Fifteen years experience. Eddie Sondelski, Dancy, Wis.

RABBITS

RAISE giant Chinchilla rabbits. Year round income. Ideal occupation. Tremendous demand for gorgeous furs, delicious meat. Great scarcity means large profits. We buy your youngsters. Willow Farm, R 108, Sellersville, Pennsylvania.

SEEDS AND TREES

FOR SALE—Sainfoin seed. Over 10 lbs., 55c per lb. Less, 75c per lb., not postpaid.

Perennial legume, soil builder, hay crop and honey plant. R. W. Brimhall, Pleasant Grove, Utah.

ANISE-HYSSOP SEED. Packet 25c; 1/4 ounce \$1.10. James Beecken, Elgin, Illinois, Rt. 1, Bx. 275.

MISCELLANEOUS

I SELL best outfit for finding bee trees, Grover, Bristol, Vermont.

INDIAN BEE JOURNAL—Official organ of the All India Beekeepers' Association. Yearly subscription price \$1.50 a year (7s 6d) by international money order. Address INDIAN BEE JOURNAL, Ramgarh, Dist. Naini Tal, U. P. India.

EARTHWORM CULTURE—Send postcard for valuable FREE bulletin, with review on "Intensive Propagation and Use of Earthworms in Soil-building." Thos J. Barrett, Earthmaster Farms, Box 488-H, Roscoe, California.

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$1.50. Hotel Cactus, San Angelo, Texas.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents, stamps. Membership of the Club, including subscription to the paper 10/6. The Apis Club, The Way's End, Foxton, England.

American Bee Journal Classified Ads

Bring Results.

Hubam in New England

A New Hampshire beekeeper writes that he is much interested in growing Hubam clover to supplement the existing bee pasture in his locality. He wants to know whether if the soil is limed properly there will be difficulty in growing Hubam in central New England. Most of the dairy farmers in his locality grow either red clover or alsike and in some instances Ladino. The common white clover thrives in the pastures.

Hubam is an annual form of the white sweet clover. Sweet clover does not succeed on acid soils but where lime is supplied it should do well. I would expect it to grow on lands where red clover makes a satisfactory growth. Hubam blooms in late summer and in many localities provides a good honeyflow after all other clovers are done blooming.

For some reason yields of nectar from sweet clover are much lighter as a rule in Eastern States than in the Mid-West and the Plains region.

F. C. P.

HONEY WANTED

**A CAN OR A CARLOAD
TOP PRICES PAID**

Will furnish 60-lb. cans if desired

C. W. AEPPLER CO. : Oconomowoc, Wisconsin



Thrifty Queens

We can make immediate shipment.

In lots of 1 to 24... 90c ea.
25 to 99... 80c ea.
100 up... 75c each
Three-banded Italians only.

Remember Thrifty bees are guaranteed to please.

W. J. Forehand & Sons
FORT DEPOSIT, ALA.
Breeders since 1892

Queens 3-Banded Italians AFTER JUNE 1ST.

1-24... 90c
25-99... 80c
100-over... 70c
Pure mating, satisfaction guaranteed

S. C. Zeigler
FORT DEPOSIT, ALABAMA

ROOT SERVICE Beekeepers' Supplies

HONEY CONTAINERS
Write for Price Lists

A. I. Root Co. of Chicago
224 West Huron Street, Chicago, Ill.

Business or Personal Stationery for Particular People

250—8½x11 Hammermill Bond letter-heads... \$1.75
250—6¼ envelopes... \$1.75; Both... 3.25
500—Good quality business cards... 3.00
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ALL FOUR \$7.00

20% less for additional quantities printed to the same copy. Fast service assured. Free samples and additional prices on request.

Bennett Print Shop

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NOTICE

No more orders can be accepted for 1946 shipment

We wish to thank you for orders received this season. To the ones rejected we are sorry that we couldn't fill those orders.

Place your order with us now and be sure for 1947.

O. K. Anderson & Son
Coffee Springs, Alabama

Crop and Market Report

The bulk of the crop is now in along the Atlantic seaboard and into Florida and throughout the South. In the north Atlantic states including Maryland, Virginia, the Carolinas, the crop is considerably larger than it was a year ago when they had a near failure. Georgia probably no larger than last year and Florida somewhat less in spite of a quite bounteous orange flow.

In general, a total crop estimate is about as follows, southeast states probably more than last year, same of entire south including Texas. Totals for Arizona and New Mexico and most parts of California will likely be larger than last year although not anywhere near normal. Washington probably less and Oregon more than a year ago.

New England states largely less although Connecticut reports good crops and in some sections of Maine also. Vermont almost a failure.

New York probably equal to last year's total if late fall flows are good. Early flows disappointing. Ohio perhaps as good as a year ago. Michigan poor, Wisconsin not so good as a year ago. Indiana probably better, particularly in northern section. Illinois perhaps equal of last year but very doubtful on account of shortage of flow in central and northern sections.

Minnesota had a big crop last year and hope for the same this year if conditions materialize although so far not so good. Iowa spotty. North Dakota perhaps equals South Dakota and Nebraska and perhaps more than a year ago, Kansas about equal, Oklahoma short on account of drought.

Montana will have a hard time equalling last year, in fact the entire inter-mountain areas unless the late flows develop. Same true of Idaho.

The Canadian provinces may be equal to a year ago although many reports of shortages throughout Ontario, Quebec and into the prairie provinces. Doubt their total will be equal to 1945.

If the total crop for the United

States and Canada equals 1945, it will only be because of more bees to gather the honey rather than a better per colony average. We look for at least a 10% reduction over last year's 200,000,000 pound crop.

About Prices

Dozens, even hundreds of letters, have come to this office asking what the prices are now for honey. Naturally with O. P. A. ceiling off, this is a legitimate question. Recommendations cannot be made, however, because O. P. A. ceilings may return when we go back to the status quo.

We have heard of carloads and bulk quantities of honey selling at 17 cents and even at 20 cents per pound, f. o. b. shipping station. Apparently this is being offered largely by commercial industrial users who are in a way "black marketing" even with the O. P. A. ceilings off because the regulations against heavy industrial use still are in effect.

If ceilings still remain off, undoubtedly the bulk honey price will range somewhere between 17 to 20 cents and retail prices will, of course, be readjusted accordingly although the spread is probably larger under O. P. A. than it will be under the new system.

In any case, there will be demand for all the honey that is produced and far more too.

We would hate to see wildcat prices on honey as we have recently had on butter. The industry eventually suffers from any such prices.

We would urge on our readers to maintain as fair a price as possible, still keeping within a reasonable measure of prices offered and quoted by others.

No doubt in most areas with crop comparatively small and the demand heavy, there will be no necessity of looking for distant markets. Such markets are active, however, and unfortunately many of them are not from the packers who distribute the honey to the housewife but rather from large industrial users.

One Can or a Carload—What have you? Mail your offerings to us.—Prompt action. Cash on delivery.

JEWETT & SHERMAN CO.

Lisbon Rd. & Ervins Ave.
Cleveland, 4, Ohio

1204 W 12th St.
Kansas, City Mo.

HONEY WANTED

Cars and less than cars
Top Prices

C. W. AEPPLER CO., Oconomowoc, Wisconsin

The Postscript

The bed of anise-hyssop appears to offer a sort of insect paradise both by day and night. When it gets too dark for the bees to fly the moths take over. The flashlight reveals that the plants are swarming with moths of many kinds. At times there are flocks of goldfinches flitting about at mid-day. The birds are probably seeking seeds or perhaps small insects. Butterflies are also attracted. It looks like a good place to make an insect collection since the variety of visitors is so large. No other plants attract so many bees over so long a time in all kinds of weather.

From Ted Millen at Allahabad, India, came a packet of seed of a new radish. It lacks the fleshy root which we use for food but the very long seed pods while still tender are eaten instead, much as we use green beans. The plant grows very rapidly and the pods are ready for use in little more than a month or six weeks after the seed is planted. Millen reports it as a good bee plant in India and writes that it is grown for forage for livestock in that country also. It is possible to grow two crops in one year. He suggests sowing in August to provide September and October bee pasture.

Some of the yellowest bees that I have seen were the offspring of a Caucasian queen mated to an Italian drone. One could hardly believe his eyes when opening the hive with so many yellow bees to find a very dark Caucasian queen at the head of the colony. One soon learns that it is easy to be deceived as to the purity of bees when judging by the markings of the workers.

The management of bees is somewhat different in a mild climate than here in the midwest. Frank Knapek who lives at Blue Lake, 300 miles north of San Francisco, California, writes that bees fly nearly all year there. Pollen comes to the hives in January and early fruit trees bloom in February. The main honey crop

comes from wild blackberries and Himalaya berries. He tried double hives but found that he had better results with a single hive body with a partly filled super for reserve stores. Where nectar and pollen come from the field so constantly, there is no need of the big reserves that are necessary here to insure a crop.

When more than thirty years ago I began using two Langstroth bodies instead of one the honey crop was increased. When later the bees were kept all year in two of the large Dadant bodies, again there was a corresponding increase in the honey crop. When a large reserve of honey and pollen is left with the bees it eliminates the necessity for feeding and provides the bees with ample resources with which to produce large clusters of bees ahead of the honey-flow. In my opinion, the common practice requires twice as much labor to secure as much honey as is possible by this method.

A number of clippings regarding the new subterranean clover have been sent to me, but nobody seems to know whether the bees get honey from it. It is now called subclover for short. It comes from Australia and has been planted over a rather wide area in Oregon. As far as we are able to ascertain it is suited only to mild climates. We have it growing in the test garden but it is too soon to tell whether it will succeed. Similar attempts in the Midwest have failed in several cases. The plant is a winter annual, starting in late summer, living over winter and maturing in the following spring.

Robert Hardin, of 979 Myrtle Street, Atlanta, Georgia, has translated the Ordetx work on Honey Plants of Cuba from the Spanish. It thus makes available much valuable information on the honey plants of a region of which little had previously been known. Those who are interested should write Mr. Hardin as to how it can be obtained.—F. C. PELLETT.

A-B-J Honey Labels will meet your requirements and help get more business. Write for catalog

**HONEY WANTED Carloads or Less
HIGHEST PRICES PAID
LEWIS A. KONCES CO.
NORTH ABINGTON, MASS.**

**FIRST QUALITY
Italian Package Bees
and Queens**

**John S. Shackelford
Live Oak, California**

FOR SALE

**BRIGHT YELLOW AND THREE
BAND QUEENS**

GRAYDON BROS.

RT. 2 GREENVILLE, ALA.

"SILVERHIDE"

The ready mixed aluminum paint that you have been waiting for to paint your bee hives with. Reduces the temperature from ten to fifteen degrees, highly resistant to acid, fumes and brine conditions. No waste, every drop can be used, it does not skin over or harden in the container, apply with hand brush or air spray. Write for information and prices at once.

**TUNG OIL PAINT MFG. CO., Inc.
P. O. Box 83 Orangeburgh, N. Y.**

**Honey
Containers**

We have a stock of 5-lb. and 10-lb. Tin Pails and 60-lb. Cans. Also Glass Jars in all sizes. Write for prices.

**A. H. Rusch & Son Co.
REEDSVILLE, WISCONSIN**

**Leather Colored Italians
REAL HONEY GETTERS
Gold Flat Apiaries
NEVADA CITY, CALIFORNIA**

**Three-Banded
Italian Queens
OF HIGHEST QUALITY
1 to 24 \$1.00 ea. 25 up 80c ea.
Pure mating and live delivery
guaranteed.**

**E. R. RALEY
Box 1610, Daytona Beach, Fla.**

YOUNG ITALIAN QUEENS

Three-Banded Leather Colored Bee. Now is the time for requeening and increasing for another year. Prices till October 31.

65c—Selected, untested, each 65c
\$1.00—Tested, each \$1.00

Postpaid, Air Mail, with health certificate. Prompt service, we satisfy.

GOOCH APIARIES

FARMERSVILLE, TEXAS

CANADIAN BEE JOURNAL

Canadian beekeepers have much in common with their neighbors in the U. S. If you are interested in bee activities "North of the Border," send us your subscription NOW. We will see that you receive each monthly copy regularly.

Subscription price, \$1.25 per year in U. S. A.

CANADIAN BEE JOURNAL
OSHAWA, ONTARIO

Gentle Northern Queens

From Tested 3-Banded Italian Breeding Stock

All queens are reared under natural conditions in large over-wintered queen-right colonies. Nature's way of producing large fully developed queens.

This hardy northern strain of Italians is meeting with approval in many parts of the world.

Prices June 1st to October 15th
Young untested

1-24 \$1.10
25 up 1.00

Young tested

Any quantity \$2.00

Queens shipped Airmail Postpaid

Prompt Service, Satisfaction

BARGER APIARIES

CAREY, OHIO

GLEANINGS IN BEE CULTURE

FEATURE ARTICLES—NEWS ITEMS
MONTHLY TALKS TO BEEKEEPERS

Subscription Rate

1 year, \$1.50; 2 years, \$2.50; 3 years \$3.00
In United States and Canada.

THE A. I. ROOT CO.

MEDINA, OHIO

Palmetto Quality Queens

These are our summer prices on our Three-Band Italian Queens. 1 to 10 queens 95c ea. More than 10, any number 85c each. Write for special prices on days when orders are slack. No disease, safe delivery.

C. G. Ellison & Sons

BELTON, SOUTH CAROLINA

We Can Book a Few More Orders
FOR 1946

AT PREVAILING PRICES

THE VICTOR APIARIES

UVALDE, TEXAS

MACK'S QUEENS

They Speak for Themselves

Big Hardy Northern Bred Italians for August Requeening

All queens of our own rearing and fully guaranteed. Clipped if you say, at no extra charge. \$1.00 each. Postage Paid.

HERMAN McCONNELL & SONS

ROUTE 2, ROBINSON, ILLINOIS

AFTER MAY 20TH

PERSONALLY REARED QUEENS

As good as money can buy \$1.00 each

ITALIANS

CAUCASIANS

WEAVER APIARIES : Navasota, Texas

Again S. T. FISH & CO.

INC.

1241 So. Aberdeen St. — South Water Market
CHICAGO

INTERESTED IN PURCHASING

Your Extracted HONEY CROP or ANY PART OF IT

PACKED 60 LB. CANS

OR COMB HONEY

FOR TOP PRICES SEE OR COMMUNICATE WITH US BEFORE

DISPOSING OF SAME

PHONE, WRITE OR WIRE

ITALIAN BEES AND QUEENS

No more queens after August 15th due to unfavorable weather conditions.

B. J. BORDELON APIARIES : Moreauville, La.

POLLEN SUBSTITUTES

	1-Lb.	5-Lb.	10-Lb.	25-Lb.
Brewer's yeast and soy flour expeller mixed 1 to 6		\$.75	\$1.50	\$3.00
Brewer's yeast	.40	1.50	2.75	5.50
Soy flour			1.40	2.50
Dry skim milk	.40	1.50	2.75	5.75

Write for prices in larger quantities. Include postage if you wish it by parcel post. All prices collect, Bainbridge, N. Y. M. Y. S. COMPANY, Bainbridge, N. Y.

BETTER BRED QUEENS :- 3-BANDED ITALIANS

Head all of your colonies with our Better Bred Stock. They have proven their good qualities throughout the U. S. A. and Canada. Use them for increase, requeening and swarm control.

70 CENTS EACH—REMAINDER OF SEASON

CALVERT APIARIES : : Calvert, Alabama

Keep up on the bees—read the A-B-J

1896 50 1946 Years' Experience

Our Golden Anniversary

The year 1946 marks the 50th year of continued service in the manufacture of beekeepers supplies.

With this wealth of knowledge and experience we feel we are in better position than ever to give our customers that valued quality and service that has meant so much to them in the past 50 years.

In order to assure yourself of that continued service we suggest you order early this year. Although we have an ample supply of HONEY SECTIONS, HIVE BODIES, SUPERS AND FRAMES at present, from all indications the year 1946 will make even greater demands on the industry.

Write for our SPECIAL PRICE on number two (2) beeway sections ($4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{7}{8}$); also ask for our new 1946 price list of supplies now on hand and available to our customers.

MARSHFIELD MFG. CO.
MARSHFIELD, WISCONSIN

JENSEN'S Super Quality QUEENS

Best of the season now being produced. With the rush of the package season over, more of our time is being devoted to our queen-rearing. Now is the time to lay the foundation for next season in all colonies you plan to winter. Queens showing signs of failing during the honey-flow should be replaced at once to keep the colonies going strong.

TWO STRAINS TO SELECT FROM

"Magnolia State" strain, our standard with 27 years selective breeding behind them.

1-24, \$1.10 ea.; 25-99, \$1.00 ea. and 100 up 90c ea.

Disease Resistant of Tested Parentage. The equal of any in the U. S. today.

1-9, \$1.50 ea.; 10-24, \$1.40 ea.; 25-99, \$1.30 ea. and 100 up \$1.25 ea.

JENSEN'S APIARIES MACON, MISS.

"Where Quality Reigns Supreme"

ITALIAN BEES AND QUEENS

It is our aim and pleasure to ship you good bees, young laying queens, good weight packages and ship orders on specified dates.

We advise you to place your order for bees and queens as early as possible for 1947 delivery. We will book orders now, subject to prevailing prices for 1947.

We guarantee safe arrival on bees and queens. Queens clipped at no extra cost.

PRICE LIST

QUEENS 85c THROUGH OCTOBER 31ST, POSTPAID

Quantity	1 to 24	25 to 49	50 to 99	100 up
2-lb. pkgs. with queen	\$4.15	\$4.05	\$4.00	\$3.70
3-lb. pkgs. with queen	5.15	5.05	5.00	4.70
4-lb. pkgs. with queen	6.15	6.05	6.00	5.70
5-lb. pkgs. with queen	7.00	6.90	6.85	6.65
Tested Queens	2.10	2.05	2.00	1.75
Untested Queens	1.35	1.30	1.25	1.15

Queenless Packages, deduct \$1.10 per package. Package Bees F. O. B. Queens Postpaid.

TANQUARY HONEY FARMS, INC.
LENA, SOUTH CAROLINA

Looking to the Future —

● The confidence of our customers in our company and the product we manufacture is the result of years of painstaking effort to market a line of merchandise that represents quality at its best.

● Whatever the turn of events in our economic life, we assure our customers that prices for quality goods will be kept as low as raw material and manufacturing costs will permit.

● *You will always buy the best in quality at the lowest possible price when you buy ROOT QUALITY.*



THE A. I. ROOT CO.
MEDINA, OHIO



Established 1869

Manufacturer of Beekeeping Equipment